

Sample Educational and Interpretive Programs and Products

In this section are samples of wilderness interpretive and education products developed by specific parks. They were compiled from responses to a Servicewide request for materials. Most products have wilderness as their primary theme, though a few integrate wilderness as one component of a larger theme or goal. All of these products interpret *designated* wilderness, rather than providing general information about wilderness.

Use these examples to develop your own wilderness education products. The products can then be placed in the “Site-Specific Educational and Interpretive Programs” section of this notebook to inspire future generations of interpreters and educators at your park.

For interagency consistency in wilderness interpretation, the following goal and objectives have been developed. As you create wilderness programs and interpretive products, work to meet the outlined objectives.

Goal:

To preserve the resources and values of designated wilderness by fostering development of a personal stewardship ethic for the National Wilderness Preservation System in participants through increased awareness, knowledge, understanding, and appreciation of wilderness.

Objectives:

By the end of this program, participants will be able to:

1. Define wilderness according to the Wilderness Act.
2. Explain why the Wilderness Act was established.
3. State who establishes wilderness areas, where wilderness areas are, and who manages wilderness areas.
4. Differentiate between wilderness areas and other public lands.
5. List three benefits of wilderness areas (reservoirs of biological diversity, scientific value, watersheds, life support systems, historic and cultural values, spiritual values, aesthetic values, recreation, refuge, education values, etc.).

Wilderness is inherently tangible and intangible. Tangibles include designated wilderness, the National Wilderness Preservation System, wildlife, water, air, and prehistoric and historic cultural artifacts. Intangibles include solitude, preservation, wildness, vision, past, future generations, humility, system, history, habitat, refuge, stewardship, hope, and mystery. Wilderness evokes many universal concepts including heritage, community, fear, change, hope, struggle, freedom, patriotism, renewal, home, tradition, survival. Successfully linking these tangibles and intangibles to the universal concepts will provide opportunities for your audience to make meaningful connections to wilderness.

Wilderness is such a comprehensive and complicated subject that creating a program on wilderness can appear daunting. Yet, starting with the basic goal and objectives and using the following examples as a guide, you can successfully incorporate wilderness into park programming.

Sample Educational and Interpretive Programs and Products

1. Wilderness Education Plans
2. Wilderness in Comprehensive Interpretive Plans
3. Interpretive Program Outlines
4. Education Curriculum
5. Site Bulletins
6. Articles (Park Publications)
7. Articles (Outside Park)
8. Backcountry Brochures
9. Exhibits
10. News Releases
11. Events
12. Posters
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1. Wilderness Education Plans – Page VI.D5

Gulf Islands National Seashore (*see pp. VI.D5-11*)

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2. Wilderness in Comprehensive Interpretive Plans – Page VI.D17

Appalachian National Scenic Trail (*see pp. VI.D17-18*)

Dry Tortugas National Park (*see p. VI.D18*)

El Malpais National Monument (*see p. VI.D18*)

Glacier Bay National Park and Preserve (*see p. VI.D18*)

Hawaii Volcanoes National Park (*see p. VI.D18*)

Isle Royale National Park (*see p. VI.D18*)

Mt. Rainier National Park (*see p. VI.D5-19*)

Petrified Forest National Park (*see p. VI.D19*)

Shenandoah National Park (*see pp. VI.D19-20*)

Yellowstone National Park (*see p. VI.D21*)

3. Interpretive Program Outlines – Page VI.D23

“From Fearsome to Fascinating,” Interpretive Slide Program, Mt. Rainier National Park (*see pp. VI.D23-24*)

“Fox Hollow Hike,” Shenandoah National Park (*see pp. VI.D25-27*)

“At Home in the Wild,” Lumberlost Hike, Shenandoah National Park (*see pp. VI.D28-31*)

“Rose River Loop,” Shenandoah National Park (*see pp. VI.D32-37*)

“The Wild Side of Shenandoah,” Interpretive Slide Program, Shenandoah National Park (*see pp. VI.D38-42*)

“Explore Wild Shenandoah,” Resource Immersion Program, Shenandoah National Park (*see pp. VI.D43-46*)

4. Education Curriculum – Page VI.D47

The Culture of Wilderness WebQuest, NPS Alaska Region Support Office (*see p. VI.D47*)

Education Curriculum, Black Canyon of the Gunnison National Park/Curecanti NRA (*see pp. VI.D48-52*)

Teacher Activity, Black Canyon of the Gunnison National Park/Curecanti NRA (*see pp. VI.D53-54*)

Boundary Waters Canoe Area Wilderness Kit, U.S. Forest Service (*see pp. VI.D55-85*)

Wilderness Curriculum Guide, Gulf Islands National Seashore (*see p. VI.D86*)

Wilderness Education Curriculum, National Geographic Society (*see pp. VI.D87-89*)

Advanced Wilderness Education Experience Summary, Olympic National Park (*see pp. VI.D90-91*)

Advanced Wilderness Education Experience Program, Olympic National Park (*see pp. VI.D92-95*)

Field Seminars Booklet, Shenandoah National Park (*see p. VI.D97*)

WildLink Project Summary, Sierra Nevada Wilderness Education Project (*see p. VI.D98*)

WildLink Recipes, Sierra Nevada Wilderness Education Project (*see p. VI.D99*)

5. Site Bulletins – Page VI.D101

“Badlands Wilderness and Sage Creek Campground,” Badlands National Park (*see pp. VI.D101-102*)

“Wilderness,” National Park Service Wilderness Program (*see pp. VI.D103-104*)

6. Articles – Park Publications – Page VI.D105

“Celebrate a New Wilderness,” Great Sand Dunes National Monument and Preserve (*see p. VI.D105*)

“What Is Wilderness?” Lassen Volcanic National Park (*see p. VI.D106*)

“Discovering *Wildness* at Cinder Cone” Lassen Volcanic National Park (*see p. VI.D107*)

“Go Wild With Shenandoah!” Shenandoah National Park (*see p. VI.D108*)

“A WILD Idea” and “As You Visit, Leave No Trace,” Shenandoah National Park (*see p. VI.D109*)

“Go WILD, A Wilderness Challenge,” Shenandoah National Park (*see p. VI.D110*)

“Call of the Wild, Wilderness in Shenandoah National Park,” Shenandoah National Park (*see p. VI.D111*)

“Wilderness Daily Reports,” Yosemite National Park (*see pp. VI.D112-113*)

7. Articles – Non-NPS Publications – Page VI.D115

“Wilderness, A Place Apart,” Holbrook Tribune, Petrified Forest National Park (*see p. VI.D115*)

“Preserving Shenandoah,” American Park Network Guide, Shenandoah NP (*see pp. VI.D116-117*)

8. Backcountry Brochures – Page VI.D119

“Backcountry Guide,” (pages 1 and 8), Glacier National Park (*see p. VI.D119-120*)

“EXPLORE Shenandoah’s Backcountry,” Shenandoah National Park (*see pp. VI.D121-122*)

9. Exhibits – Page VI.D123

Visitor Center Exhibit Panels, Shenandoah National Park (*see pp. VI.D123-124*)

“Spirit of Wilderness” Interactive Exhibit, Shenandoah National Park (*see pp. VI.D125-127*)

10. News Releases – Page VI.D129

“Shenandoah National Park’s Field Seminar Explores . . .,” Shenandoah National Park (*see p. VI.D129*)

“Park Seminar Celebrates the Art of Wilderness,” Shenandoah National Park (*see p. VI.D130*)

“Shenandoah Celebrates 25 Years of Designated Wilderness . . .,” Shenandoah National Park (*see p. VI.D131*)

“WildLink Program Promotes Diversity in Wilderness,” Yosemite National Park (*see p. VI.D132-133*)

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Wildflower Weekend pamphlet, Shenandoah National Park (*see p. VI.D136*)

12. Posters – Page VI.D137

“Focus on Wilderness,” Badlands National Park (*see p. VI.D137*)

“Leave No Trace Outdoor Ethics and Skills,” Badlands National Park (*see p. VI.D138*)

“Renewal,” Shenandoah National Park (*see p. VI.D139*)

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“Solitude,” Shenandoah National Park (*see p. VI.D141*)

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“Using Traditional Tools,” Shenandoah National Park (*see p. VI.D143*)

13. Multimedia – Page VI.D145

“Journeys to Wilderness Canyons,” Black Canyon of the Gunnison NP/Curecanti NRA (*see p. VI.D145*)

“Journeys to Wilderness Canyons - Classroom Case Study,” Black Canyon of the Gunnison NP/Curecanti NRA (*see pp. VI.D146-149*)

“The Olympic Wilderness,” Olympic National Park (*see pp. 150-152*)

1. Wilderness Education Plans – Gulf Islands National Seashore

GULF ISLANDS NATIONAL SEASHORE WILDERNESS EDUCATION PLAN

Introduction

Wilderness is a place where human impact is significantly unnoticed, where natural processes rather than human activity are the primary influences. The Wilderness Act of 1964 was passed by the U. S. Congress to restrict grazing, mining, timber cutting and mechanized vehicles in federally designated wilderness areas. These areas valued for ecological, historic, scientific, and experiential resources are protected for future generations. The National Wilderness Preservation System is managed by the National Park Service, Forest Service, Fish and Wildlife Service, and the Bureau of Land Management, but all citizens have a role and responsibility for protecting designated wilderness areas.

In 1978 the U. S. Congress designated Horn Island and Petit Bois Island as wilderness areas. Located approximately ten miles offshore, these two barrier islands parallel the Mississippi coastline at its eastern end, part of a longer string of barrier islands defining the Mississippi Sound.

This Wilderness Education Plan specifically addresses ways that Mississippi Gulf Coast residents and visitors can be better informed about these wilderness barrier islands and their own role in protecting and preserving them.

Background

Past and Present Wilderness Interpretation Practices

Gulf Islands National Seashore has employed a variety of interpretive practices to educate the public about the wilderness barrier islands, with past and present interpretive practices ranging from public programs to media events.

Each November is Wilderness Month, featuring special programs on wilderness at Davis Bayou featuring speakers such as John Anderson (son of well-known regional artist Walter Anderson, whose art celebrated Horn Island and other coastal treasures) and Ed Zahniser (son of Howard Zahniser, who wrote the Wilderness Act passes by Congress in 1964). Earth Day 2002 featured traveling “*Leave No Trace*” trainers presenting programs at Davis Bayou and offsite on low-impact wilderness visits. Information about the wilderness barrier islands is included in the press release, which announces Wilderness Month activities each November.

Interpretive staff have contributed to an exhibit on Horn Island at the George Ohr Art Museum, to interpretive programs on Horn Island as reflected in the artwork of Walter Anderson, and to exhibits of local artists’ Horn Island works at the Davis Bayou Visitor Center.

Visitors to Davis Bayou may learn more about the wilderness barrier islands through information on the wilderness islands in the current park brochure, through the more comprehensive 8-page brochure “*Camping on a Wilderness Barrier Island*,” and through a focus on the wilderness barrier islands in Davis Bayou’s orientation videos shown in the Visitor Center auditorium. Children participating in the annual summer Junior Ranger program learn about wilderness and the wilderness barrier islands.

Gulf Islands National Seashore sponsors press trips to Horn Island every other year, providing news reporters and still and video photographers the opportunity to report on the wilderness barrier islands. Participation in these trips by local and regional media has made first-hand information on the wilderness barrier islands available to television audiences and newspaper readers across Mississippi, Louisiana, and Alabama. Articles in *Mississippi Outdoors Magazine* (1997) and *Coast Magazine* (1998) and short segments on Horn Island suitable for use between programs on *Mississippi ETV* have also been coordinated by park staff.

To reach a broader audience of children, a wilderness activity trunk with an accompanying wilderness curriculum teachers' guide is currently being prepared and will soon be available to teachers across the region.

Origins and Activities of Wilderness Barrier Island Visitors

Gulf Islands law enforcement and resource management rangers indicate that the majority of visitors to the wilderness barrier islands are local residents. Biloxi and Ocean Springs boaters frequently use the central and western end of Horn Island. Gautier and Pascagoula boaters frequently use the eastern end of Horn, as well as Petit Bois. Petit Bois, particularly its eastern tip, sees a number of Alabama boaters from communities like Mobile, Bayou Le Batre, and Dauphin Island. The islands are also visited by people from upstate Mississippi cities such as Hattiesburg, Laurel, and Jackson, though with less regularity than local boaters.

A number of visitors to the wilderness barrier islands are persons who visit the islands repeatedly. Of the several hundred boats that may anchor off the west tip of Horn Island on a particular summer weekend, or of the dozens of boats that may anchor there in other seasons, many are repeat visitors.

Visitors generally relax on board or on the beaches, swim, or fish. Wade fishing on sand flats is a popular activity for island visitors.

Future Projections on Wilderness Barrier Island Use

Interviews with law enforcement and resource management rangers indicated a belief that most visitors to Horn Island and Petit Bois Island come from western Harrison County MS, Jackson County MS or eastern Mobile County AL. Based on this assumption, U.S. Census Bureau data were examined for four counties in closest geographic proximity to Horn Island and Petit Bois Island: George County MS, Harrison County MS, Jackson County MS, and Mobile County AL. Populations of these four counties for 2000 were compared with population projections to determine expected rates of population growth over the next ten years.

Populations and Population Projections Selected Coastal Counties

County	1990	2000	2010
George County MS	16,673	19,144	22,650
Harrison County MS	165,365	189,601	203,095
Jackson County MS	115,243	131,420	153,013
Mobile County AL	378,643	399,843	444,448
Mississippi	2,573,216	2,844,658	3,118,171

Population figures are based on U.S. Census Bureau data. Population projection figures based on Mississippi Institutions of Higher Learning data.

Population Increases and Rate of Growth Selected Coastal Counties

County	Actual Growth 1990-2000	Projected Growth 2000-2010
George County MS	2,471 (14.8%)	3,506 (18.3%)
Harrison County MS	24,236 (14.6%)	13,494 (7.1%)
Jackson County MS	16,177 (14.0%)	21,593 (16.4%)
Mobile County AL	21,200 (5.6%)	44,605 (11.2%)
Mississippi	271,422 (10.5%)	273,513 (9.6%)

Population figures are based on U.S. Census Bureau data. Population projection figures based on Mississippi Institutions of Higher Learning data.

Populations and Population Projections

As indicated in the accompanying table, “Populations and Population Projections, Selected Coastal Counties,” populations in all four counties between 1990 and 2000 rose and are projected to continue to rise between 2000 and 2010. As indicated in the table “Population Increases and Rate of Growth, Selected Coastal Counties,” the rate at which growth occurs is expected to increase slightly in George and Jackson Counties, decrease in Harrison County, and more than double in Mobile County.

In George and Jackson Counties, increases in population over the current decade (2000–2010) are expected to be slightly more than the increases in population seen in the 1990’s in those two counties. In other words, George and Jackson Counties are expected to continue to grow as they have since 1990.

While the rate of growth in Harrison County over the current decade (2000–2010) is expected to fall to half the growth rate of the 1990’s, the actual number of persons added to the population is still significant. Harrison County added 24,235 more people between 1990 and 2000 and is projected to add another 13,494 between 2000 and 2010. In other words, while Harrison County’s rate of growth is slowing, the population of this largest Mississippi coastal county is expected to continue to rise significantly between 2000 and 2010.

Of the four counties in closest geographic proximity to the wilderness barrier islands, Mobile County is expected to experience the greatest increase in rate of growth between 2000 and 2010. While its 1990–2000 growth rate was low in comparison to the faster-growing Mississippi coastal counties, Mobile County’s growth rate between 2000 and 2010 is expected to more than double. Because its current population is larger than the combined populations of all of Mississippi’s coastal counties, this increase is significant for projections of future wilderness barrier island use.

Combining population figures for all four counties, growth patterns are significant. In 1990, there were 675,924 people living in the four counties closest to the wilderness barrier islands. In 2000, there were 740,008 people in those four counties. The 2010 projected population of the four counties is 823,206. These changes represent a 9.5% rate of growth between 1990 and 2000, and an 11.2% rate of growth between 2000 and 2010.

Demographic Projections

According to demographic projections made by the Center for Policy Research and Planning of Mississippi’s Institutions of Higher Learning, there are not expected to be significant demographic changes. White-to-nonwhite ratios are expected to remain relatively stable over the current decade (9:1 in George County, 3:1 in both Harrison and Jackson Counties, and 3:2 in Mobile County). Although Harrison County has a somewhat younger population, George and Jackson Counties both currently have larger cadres of people in their late teens and early twenties and in their forties. As these populations age, age-related bulges in the population of these counties by 2010 are expected to reflect larger cadres of people in their twenties and fifties.

Implications of Population and Demographic Data

In summary, what do current and projected population and demographic data indicate for future wilderness barrier island use? Local, regional, and state populations will continue to rise, with continued concentrations of young and middle-aged persons dominating the age curve. Overall, the local population (from which many wilderness visitors come) has grown by nearly 10% over the last decade and is expected to grow by more than 10% over the current decade.

Given the extent of recent population growth and the projections for future growth, it is logical to extrapolate that the number of wilderness visitors will also increase. In fact, estimates made by NPS of the number of visitors to the wilderness barrier islands support such an extrapolation. While recent changes in the NPS accounting formulas for determining the number of park visitors make exact comparisons difficult, counts clearly show significantly increased numbers of visitors.

Even with changes in the accounting formulas employed, these estimates indicate that more people visited the wilderness barrier islands in 2000 than in 1980, a trend likely to continue as area populations continue to increase.

Estimated Number of Park Visitors

County	1980	2000
Total Park Visitors	577,649	750,394
Island Campers on All Islands	12,675	6,329
Visitors to Horn Island	18,050	32,459
Visitors to Petit Bois Island	9,634	17,459

With increased use of the wilderness barrier islands come increased problems, unless there is a corresponding increase in wilderness education efforts.

Problems Facing Those Charged With Managing and Protecting the Wilderness Barrier Islands

A number of problems, both geographic and societal, face those charged with managing and protecting the wilderness barrier islands:

1. Not all Coast residents and visitors know that Petit Bois and Horn Island are federally designated, protected wilderness areas.
2. Not all Coast residents and visitors know that federally designated wilderness areas are managed and protected by a federal agency like the National Park Service.
3. Not all Coast residents and visitors understand that federally-designated wilderness areas exist so that people can experience wild places without disturbing or destroying natural processes at work there, thus keeping wilderness wild for future visitors.
4. Not all Coast residents and visitors understand that federally designated wilderness areas are protected and valued for ecological, historical, scientific, and experiential reasons that make them important to everyone.
5. Not all Coast residents and visitors have a land ethic that causes them to act in ways that help protect the wilderness barrier islands.
6. Not all Coast residents and visitors understand how to visit wilderness barrier islands without disturbing or destroying them.
7. Not all Coast residents and visitors understand how their actions can lead to damage and even loss of wilderness.
8. Not all Coast residents and visitors understand that everyone has a role in protecting the wilderness barrier islands.
9. Over the past decade, both the resident population of the Coast and the number of visitors to the Coast have risen sharply, a trend expected to continue in the future. These increases mean that more people will impact the islands, either directly through visits to the islands or indirectly through ecological changes on the mainland that impact the islands and the surrounding Mississippi Sound.
10. Most visitors to the wilderness barrier islands do not funnel through a central entry point where contact with them can be made and where they can be educated about responsible use of wilderness areas. Instead, efforts to reach and educate visitors to the wilderness barrier islands must begin by reaching them wherever they are.
11. Distributing printed material such as pamphlets or brochures to educate visitors to the wilderness barrier islands may in fact add to the litter problem on and around the islands. Other vehicles for educating visitors may be more effective and less impacting.

12. Some next-generation wilderness barrier island visitors are learning negative behaviors by observing their elders misuse wilderness areas, rather than learning positive behaviors. Thus, the threat that uninformed or uncaring visitors pose to wilderness barrier islands may be perpetuated in future generations.

Methods for Educating the Public About the Wilderness Barrier Islands

Goals

- To spread the word to local residents and visitors that we have federally-designated wilderness areas right here on our own doorstep.
- To impart a land ethic to local residents and visitors that leads them to act in way that protect and preserve wilderness barrier islands.
- To educate local residents and visitors about positive, low-impact use of wilderness barrier islands.

Audience

- Local Coast residents, particularly the boating public.
- Tourists, both one-time visitors and returning visitors.
- Children who can help to educate parents.

Methods for Consideration

Staff-intensive Methods

Establish a cadre of specially selected and specially trained park volunteers to support and supplement rangers specifically for the wilderness barrier islands. The growing pool of retired or semi-retired persons in the population should provide an ever-increasing source for this specially selected group; many people who might not otherwise volunteer might respond to the appeal of volunteering on a wilderness barrier island. These specially trained volunteers would then work with rangers to reach the public in ways such as the following:

1. Rangers or park volunteers can offer weekend walking tours of a wilderness barrier island, providing the opportunity to interpret the importance of wilderness and practices that preserve it. These walking tours will reach private boaters who visit the islands on weekends, particularly those with children aboard who are likely to participate because they see the walking tour as a positive experience for their children.
2. Rangers or park volunteers in small watercraft such as the Boston Whalers can move from boat to boat around the wilderness barrier islands on weekends, interacting in an educational capacity rather than a law-enforcement capacity to educate island visitors. For instance, environmentally friendly litter bags imprinted with good wilderness practices might be distributed on these boat-to-boat visits.
3. Rangers or park volunteers can offer flotilla day-trips to a wilderness barrier island, available to people in small private boats who might want to visit one of the islands but who might not feel comfortable making the trip alone. These flotilla trips would provide the opportunity to interpret wilderness concerns and positive practices.
4. Rangers or park volunteers can form a Speakers Bureau, making themselves available to local civic groups, schools, etc., to let people know that we have federally-designated wilderness areas right here on our own doorstep. Rotarians, Chamber of Commerce members, Sierra Club members, etc., form a population of persons who might think of wilderness only as places as far away from us as Jackson Hole or one of the western parks. Learning to think of our wilderness barrier islands as federally designated wilderness will help to change attitudes about their use.
5. On boat trips provided by Incidental Permit Holders licensed to carry passengers to the islands, rangers or park volunteers can interpret the importance of wilderness areas and the practices that help to protect and preserve them.

Media-centered Methods

Use the public media, including newspapers, radio, and television, to inform Coast residents and visitors about our wilderness barrier islands and the practices that preserve and protect them. Specifically, radio, television, and newspapers could be employed in the following ways:

6. Prepare a short videotaped presentation that (a) builds the understanding that Petit Bois and Horn Island are federally designated wilderness areas, (b) celebrates the value of these areas and the need to preserve and protect them for future generations, (c) teaches what practices do and do not disturb or destroy these areas, and d) imparts a land ethic that leads people to act in ways that preserve and protect the wilderness barrier islands. This videotape would be modeled on “Conviction of the Heart,” though shorter and specific to our wilderness barrier islands. The videotape could be used in a multitude of places, including:
 - As a continuous loop video program at the Colmer Visitors’ Center.
 - As a continuous-loop video program on board the Ship Island ferry (perhaps in the snack room on-board).
 - On the tourist-information television channel.
 - During public-service time provided by local television channels (WLOX, Fox, METV).
 - At meetings of civic groups.
 - In schools.
7. Prepare a thirty-second or one-minute spot that celebrates the fact that we have wilderness on our own doorstep. For instance, the spot might open with scenes of what people typically think of as wilderness—a western mountain range, an Alaskan snowfield, etc.—and the howl of a wolf or other sound-effect that evokes typical images of wilderness. A voice-over could then say, “Wilderness—it’s something we all need. But is it necessarily far away?” Then the western or northern image could fade to waves, then sea birds flying, and then a shot of a barrier island, and the howl of the wolf could fade to the sound of waves crashing and sea birds calling. The voice-over could then say, “It’s right here on our own doorstep. Horn Island, Petit Bois. Our wilderness barrier islands. They’re here for everyone. Take care of them.” This thirty-second or one-minute spot could run as public-service time on local television stations, as local access programming (Channel 13 on Cable One), or on the tourist information minute recently initiated by WLOX.
8. Prepare a related 30-second sound recording using the same format as described in number 7 above. Air this sound spot on public-service time on local radio stations.
9. Interest “Mississippi Outdoors” on METV in a program devoted to Petit Bois and Horn Island as wilderness barrier islands right here in Mississippi.
10. Interest local and regional newspapers in doing a feature article on Petit Bois and Horn Island as wilderness barrier islands right here in Mississippi. Include Coast newspapers like the SUN HERALD and MISSISSIPPI PRESS, and regional newspapers like the HATTIESBURG AMERICAN, MOBILE PRESS REGISTER, CLARION LEDGER, etc.
11. Interest COAST MAGAZINE and other local magazines in articles on the wilderness barrier islands. Promote this idea by emphasizing that we have right here what people often travel far away to find.
12. Prepare a “boiler-plate” piece to be added to any or all NPS press releases, highlighting the barrier islands as federally designated wilderness areas.

Printed-material Distribution Methods

Distribute printed information about the wilderness barrier islands and their protection in the form of materials that are of use to recipients, in order to minimize the chance that brochures and pamphlets simply end up as litter adding to the problem rather than helping to solve it.

13. Design an environmentally friendly litter bag that shows the NPS logo, a message like “Protect your wilderness barrier islands,” and a short set of basic rules for low-impact visits to wilderness barrier islands. Distribute these at the Colmer Visitors’ Center and at bait shops and other places where boaters fill up before trips.
14. Design a waterproof boating/fishing map that shows the barrier islands, latitude and longitude lines, selected GPS numbers for key spots such as the buoy at the western end of Horn Island, the horseshoe

on Horn Island, popular nearby fishing reefs, etc. On the back of the map, print the NPS logo, a message like “Protect your wilderness barrier islands,” and a short set of basic rules for low-impact visits to wilderness barrier islands. Distribute these at the Colmer Visitors’ Center and at places frequented by boaters and anglers, such as:

- Sport fishing association meetings
- Fishing rodeos and tournaments
- Bait shops
- Boating and marine supply stores
- Outboard boat and motor sales stores
- Fishing-license bureaus

15. Design a 3”x8” leaflet that includes the NPS logo, a message like “Protect your wilderness barrier islands,” and a short set of basic rules for low-impact barrier island visits. Establish a partnership with the MS Department of Wildlife, Fisheries and Parks to distribute these small leaflets along with boat registrations mailed to boat owners in coastal and adjacent counties. The leaflet could include a brief “Did you know...?” section that identifies the islands as wilderness barrier islands and a brief “If you go...” section listing the basic rules for low-impact island visits.

Miscellaneous Other Methods

16. Design a sign that can be erected at the high-use launch ramps that open onto the Sound. Similar to signs at trailheads in other parks, this sign could carry the message “Protect your wilderness barrier islands,” the NPS logo, and a short set of basic rules for low-impact visits to wilderness barrier islands. For most wilderness barrier island visitors, the area’s most popular launch ramps are their entry points to wilderness.
17. Add an educational component to the Coastwide Clean-Up, with rangers or park volunteers speaking briefly to those who gather to help in the cleanup. Distribute the litter bags described in #13 above and/or the fishing/boating map described in #14 above as thank-you’s. Although this is “preaching to the choir,” the clean-up volunteers may learn something new and may pass on these materials to others.
18. Distribute to schools a small, inexpensive curriculum pack, which includes a copy of the video-taped presentation described in #6 above, along with several primary, several intermediate, and several middle-school level lesson plans to accompany the video-tape. Children who understand the importance of preserving wilderness may reach their parents with this message.
19. Establish a partnership with the Department of Marine Resources to include information on the wilderness barrier islands in the boating safety course required for all persons born after 1980.
20. Prepare a web page on the wilderness barrier islands, including maps and photos as well as basic rules for low-impact visits, and establish links to it from governmental and business web sites including local-area Chambers of Commerce, coastal county tourism departments, DMR, boat charter and boat sales businesses, etc.

Conclusions

Local, regional, and statewide populations are growing and will continue to grow. With population growth comes increased use of the wilderness barrier islands. Increased use brings increased risks to these fragile islands, demanding intentionally more intensive wilderness education efforts.

1. Wilderness Education Plans – Shenandoah National Park

SHENANDOAH NATIONAL PARK WILDERNESS EDUCATION PLAN, 2002-2007

Program History

To preserve Shenandoah National Park's wilderness resource, the park established a Wilderness Education Program in 1997. A Wilderness Education Plan was written in support of the revised Backcountry and Wilderness Management Plan. The program has been successfully implemented and has received national recognition for its accomplishments.

1997

- Secured Natural Resource Protection Program (NRPP) funding to implement revised Backcountry and Wilderness Management Plan.
- Received NPS Wilderness Management and Stewardship Award.

1998

- Backcountry survey conducted by Virginia Technological University showed that the visitors to Shenandoah's backcountry and wilderness area support wilderness yet do not differentiate between the concept of wilderness and designated wilderness. Survey report recommended that Shenandoah managers consider increasing wilderness education efforts.

1999

- Hired term position to implement education component of Backcountry and Wilderness Management Plan through NRPP funding.
- Integrated wilderness into regularly scheduled interpretive programs.

2000

- Visitor Study conducted by University of Idaho shows that 71% of visitors rate "experiencing wilderness" as a very important reason for visiting Shenandoah National Park. 92% of visitors rated wilderness as very important in "planning for the preservation of the park for future generations."

2001

- Integrated wilderness education into Shenandoah's Comprehensive Interpretive Plan.
- Conducted first Wilderness Weekend commemorating Shenandoah National Park's 25th anniversary of designated wilderness.

National Park Service Policy Directives for Wilderness Education

Shenandoah National Park's Wilderness Education Program is consistent with National Park Service policy and initiatives.

NPS 2001 Management Policies 6.4.2 Wilderness Interpretation and Education

"In the context of interpretive and educational planning, national park units with wilderness resources will: (1) operate public education programs designed to promote and perpetuate public awareness of, and appreciation for, wilderness character, resources, and ethics, while providing for acceptable use limits; (2) focus on fostering an understanding of the concept of wilderness that includes respect for the resource, willingness to exercise self-restraint in demanding access to it, and an ability to adhere to appropriate, minimum-impact techniques; and (3) encourage the public to use and accept wilderness on its own terms; i.e., the acceptance of an undeveloped, primitive environment and the assumption of the potential risks and responsibilities involved in using and enjoying wilderness areas. National Park Service interpretive plans and programs for wilderness parks will address the primary interpretive themes for wilderness. Education is among the most effective tools for dealing with wilderness-use management problems and should generally be applied before more restrictive management tools."

Directors Order #41 Sec. C6

“The Comprehensive Interpretive Plan for parks with wilderness will include and address the primary park interpretive themes that reflect the wilderness significance statements that appear in the park’s GPRA Plan. Wilderness character and resources should be included in the park’s interpretation and educational program, and be included as an integral component of the long range interpretive plan and annual implementation plan.

Public interpretation and education is essential for the support, understanding, and protection of wilderness. On-site programs may include talks, walks and other presentations, trailhead information, publications, and wilderness information centers or exhibits in existing visitor centers. Off-site and outreach programs may include a variety of presentations, curriculum-based education programs, web page sites, and publications.

Staff education is an integral part of any wilderness education program. Wilderness awareness training will be incorporated into all appropriate training programs. Examples include orientation training for seasonal park staff, cooperating associations, concessions, and volunteers. Park managers are encouraged to establish partnerships to better promote the benefits and values of wilderness.”

NPS Wilderness Education and Partnership Plan, 2002, National Wilderness Steering Committee

“The goal of the NPS Wilderness Education and Partnership Plan is to broaden awareness, knowledge, appreciation and support of wilderness in an increasingly diverse population. . . . Desired results include increased public support for wilderness that results in protection of wilderness resources and preservation of wilderness for future generations.” The plan outlines significance statements, interpretive themes, and products which guide development of wilderness education programs.

Shenandoah Management Directives

Shenandoah National Park’s Wilderness Education Program is consistent with Shenandoah National Park’s Strategic Plan 2001–2005 and with Shenandoah National Park’s Backcountry and Wilderness Management Plan.

Shenandoah Long Term Goals

Iao: By September 30, 2005, 90% of changes to natural and cultural resources in wilderness and backcountry areas caused by visitor behavior are within acceptable levels.

Iao.1: Wilderness and backcountry leaders and users demonstrate outdoor skills and ethics through the Wilderness Education Program and its multiple partnerships.

Iib1: By September 30, 2005, 90% of visitors surveyed understand and appreciate the significance of the park.

Iib1.1: Shenandoah visitors learn accurate stories, through current scholarship, about the park significance and build connections through personal interpretive programs, interpretive exhibits and AV, and printed media, which incorporate different points of view.

Iib1.2: Citizens in neighboring communities find opportunities to build long-lasting and meaningful connections to the park by exploring critical issues through special-interest programming and temporary exhibits and become supporters of park mission goals.

Shenandoah Backcountry and Wilderness Management Plan Chapter 11

“Most experts believe that the majority of unacceptable visitor impacts in backcountry or wilderness settings are nonmalicious acts. . . . Persuasive and well directed information can be highly effective in reducing environmental impacts, visitor conflicts, and problem behaviors.”

Shenandoah Wilderness Education Program Goals

Education and interpretation are effective management tools to prevent resource damage and to preserve wilderness resources in perpetuity. The following goals define the Wilderness Education Program's vision through 2007.

1. By 2007, park visitors and neighbors exhibit a knowledge and appreciation for the history and value of wilderness as a unique resource and are active stewards in conserving wilderness areas.
2. By 2007, park staff, concession staff, partners and managers communicate accurate wilderness messages to the public.
3. By 2007, wilderness user groups, including local summer camps and university outdoor groups, demonstrate and promote appropriate wilderness ethics and minimum impact guidelines as outlined by the Leave No Trace program.
4. By 2007, land management agencies and non-government organizations are full partners in expanding and implementing wilderness education locally and nationally.

Strategies

Strategies provide measurable actions which achieve the goals of Shenandoah's Wilderness Education Program.

Goal 1 - By 2007, park neighbors and visitors exhibit a knowledge and appreciation for the history and value of wilderness as a unique resource and are active stewards in conserving natural environments.

- Plan and implement an annual Wilderness Weekend.
- Plan, coordinate, and implement 30th anniversary celebration of Shenandoah's designated wilderness in 2006.
- Determine appropriate standards of learning for the development and implementation of a curriculum based wilderness education program for schools.
- Integrate wilderness ethics and appropriate minimum impact messages consistent with Leave No Trace principles into "Parks As Classroom" pre and post visit activities and teacher information packets.
- Plan and implement overnight expeditions into Shenandoah wilderness area for local high school students.
- Plan and conduct outreach programs to non-traditional wilderness visitors.
- Conduct seminars focused on wilderness issues as part of Shenandoah's Field Seminar series.
- Publish articles annually in Shenandoah Overlook on wilderness topics, issues and values.
- Integrate wilderness messages into planning and installation of permanent interpretive exhibit at Dickey Ridge Visitor Center.
- Integrate wilderness messages into planning and installation of permanent interpretive exhibit at Byrd Visitor Center.
- Integrate wilderness messages into planning and installation of permanent interpretive exhibits at Panorama Visitor Center.
- Integrate wilderness messages into planning and installation of temporary interpretive exhibits at Loft Mountain Information Center.
- Integrate wilderness messages into planning and installation of temporary interpretive exhibits at Backcountry Information Center.
- Integrate and update wilderness information on Shenandoah's web page.
- Implement interactive computer touch-screen program project into Dickey Ridge Visitor Center interpretive Exhibit.
- Implement interactive computer touch-screen program project into Byrd Visitor Center interpretive Exhibit.
- Implement interactive computer touch-screen program project into Panorama Visitor Center interpretive Exhibit.

- Install interactive computer wilderness program into Shenandoah's Internet services.

Goal 2 - By 2007, park staff, concession staff, partners and managers communicate accurate wilderness messages to the public.

- Conduct annual training for park interpretive staff on Leave No Trace, park backcountry and wilderness management policy, and interpretation of the history and value of wilderness.
- Conduct annual training for seasonal staff in all divisions on wilderness, wilderness ethics and Leave No Trace principles.
- Conduct at least one Leave No Trace Train The Trainer course for park and concession personnel annually.
- Update Wilderness Resource Notebook for field employees annually.
- Integrate wilderness themes into park interpretive services including media development, interpretive programming, interpretive displays, exhibits, publications, and bulletin boards.
- Assist in revising Shenandoah's Backcountry and Wilderness Management Plan to ensure wilderness education component.
- Write articles for internal interagency publications such as People, Land, Water, the Arrowhead and NPS website InsideNPS.
- Seek and obtain outside funding for projects and actions.
- Establish interdivisional Shenandoah wilderness education advisory group to maintain communication, cooperation, and support for wilderness education projects.
- Prepare annual Wilderness Education Plan based on five-year plan and share with park staff.
- Produce annual reports of Wilderness Education Program for management team and Shenandoah National Park workgroups.

Goal 3 - By 2007, wilderness user groups, including local summer camps and university outdoor groups, demonstrate and promote appropriate wilderness ethics and minimum impact guidelines as outlined by the Leave No Trace program.

- Establish formal partnerships and working relationships with local college and university outdoor recreation programs. Coordinate trainings, education programs, and college classes for staff members and students.
- Coordinate an outdoor recreation workshop for regional college and university program leaders.
- Establish working partnerships with local summer camps to integrate wilderness ethics and Leave No Trace principles into their operations.
- Establish formal partnerships with local outdoor retailers to institute and promote appropriate wilderness ethics and minimum impact principles into their operations.
- Assist with revision of Shenandoah's Backcountry Camping brochure to ensure continued wilderness message.
- Work with Natural Resources Division to ensure wilderness education component in Shenandoah's cliff management plan.

Goal 4 - By 2007, federal land management agencies, non-government organizations are full partners in expanding and implementing wilderness education.

- Coordinate local, regional, and national Boy Scout and Girl Scout events to promote wilderness ethics and Leave No Trace principles and techniques.
- Implement components of NPS Wilderness Education and Partnership Plan.
- Advise and inform NPS National Wilderness Steering Committee on regional and national wilderness education and interpretation issues.
- Assist with production of a wilderness NPS Unigrid brochure in cooperation with Harpers Ferry Center.
- Assist with production of a wilderness handbook in coordination with Harpers Ferry Center.
- Assist with revision of Arthur Carhart National Interagency Training Center education curriculum.

- Plan and implement activities celebrating 40th anniversary of The Wilderness Act, September 3, 2004 in coordination with national initiatives.
- Participate in planning and development of the Wilderness Stewardship Expo and Summit, October 2004.
- Continue planning and implementing wilderness education events and activities with the Potomac Appalachian Trail Club.
- Present Shenandoah and NPS wilderness education programs at professional venues, including The George Wright Society, Arthur Carhart National Interagency Wilderness Training Center, National Association of Interpretation, North American Association of Experiential Education.
- Coordinate development and distribution of wilderness information with the NPS Natural Resources Information Division.
- Assist Potomac Appalachian Trail Club LNT committee with logistical support and equipment for LNT trainer courses.
- Coordinate publication of wilderness information in regional and national publications such as The Potomac Appalachian, LNT Tracker, Backpacker Magazine, and the National Parks Conservation Association magazine.

Assessing Success

Shenandoah National Park's Wilderness Education Program will monitor and evaluate program success. The long-term goal of the Wilderness Education Program is to increase the public's awareness, knowledge and understanding of designated wilderness. Therefore:

By 2007, 80% of participants in Wilderness Education Program activities demonstrate awareness, knowledge and understanding of designated wilderness.

Methods used to measure this goal include, but are not limited to:

- Participant evaluations
- Visitor comments
- Direct observation of visitor interaction with wilderness exhibits
- Documentation of articles in local press
- Documentation of resource conditions in Shenandoah's backcountry and wilderness area

2. Wilderness in Comprehensive Interpretive Plans

Appalachian National Scenic Trail - Draft Interpretive Themes

Partnership and Stewardship (Ethical)

The Appalachian Trail is a living example of citizen volunteers working with governments and professionals to create and perpetuate a national treasure.

The Appalachian Trail . . .

- Has a history rooted in private citizen action and public professional land conservation.
- Depends on individual and societal commitments to the ideals of stewardship, volunteerism and responsible use for its survival.
- Can be cared for and protected by embracing the ethics and skills of Leave No Trace.
- Offers the opportunities to participate in the protection of the resource.
- Offers opportunities to learn concepts and values like conservation, respect, and fellowship that can be internalized and transferred to daily life off the Trail.

Linking Communities (Social)

The Appalachian Trail is a thread that unites many diverse communities for recreation, learning, and the protection of public lands.

The Appalachian Trail . . .

- Offers locally accessible recreation within a days drive of two-thirds of America's population.
- Offers recreation opportunities with friends and family.
- Fosters a sense of community among those who travel on it and those who work to protect it.
- Preserves land for future generations.

Inspiration and Renewal (Emotional and Spiritual)

The Appalachian Trail offers opportunities for personal renewal and inspiration through recreation in the natural environment removed from the pressures of modern society.

The Appalachian Trail . . .

- Offers scenic places with opportunities for contemplation, remoteness, and detachment.
- Is an example of simplicity and sustainability in practice through foot travel.
- Offers relief from urban/suburban congestion.
- Fosters a connection to the land.

Resource Diversity

The Appalachian Trail traverses a diverse array of biological and cultural regions. It offers a protected corridor for resources and opportunities for the public to learn about them.

The Appalachian Trail . . .

- Offers a wooded corridor with a sense of wilderness in places once dominated by the actions of humanity
- Can be as close to civilization as back yards and towns, or as remote as wilderness areas

Subtheme: Constancy and Change (Natural Resources)

- A Place of Timelessness: old growth, alpine zones, ice age remnants, wilderness, southern Appalachian balds.
- A Place of Change: succession forest, fire ecology, wilderness, pollution (air, water, and soil), geology (mountain building, fossils), non-native species.
- A Place of Protection: watersheds, wilderness, habitat protection, raptor migration, forestry practices.

Subtheme: Human Traces Along the Trail (Cultural Resources)

- A Place of Industry: charcoal pits, iron furnaces, mining, logging, trains, C&O NHP, Harpers Ferry NHP, mills, dams, highways, TVA.
- A Place of Conflict: Over Mountain Victory NHT TN, Mosby's Raiders VA, Harpers Ferry NHP WV, Battle of South Mountain MD, Fort Dietrich Snyder PA, Shay's Rebellion MA, Carry Pond ME.
- A Home Place: native peoples, early European settlement, mountain cultures (Brown Mountain Creek VA, Shenandoah National Park, Aldrichville VT), agriculture, CCC, music, literature.

Adventure and Challenge (Physical)

The Appalachian Trail provides opportunities for physical and mental challenges.

The Appalachian Trail . . .

- Offers a sense of accomplishment.
- Encourages independence and self-reliance.
- Provides opportunities for long distance hiking.

Dry Tortugas National Park – General Management Plan and Comprehensive Interpretive Plan Themes

Dry Tortugas National Park is a one-of-a-kind resource. It offers unique opportunities for cognitive, affective, sensory, and behavioral experiences to visitors. As such, visitors to Dry Tortugas National Park will be able to:

- Experience the essence of the park's wild and remote nature—from wildlife, coral reefs, and scenery to wonder, quiet, solitude, and personal inspiration.
- Hear the echoes of the past through stories the park preserves.
- Develop a sense of appreciation and responsibility that will result in actions to protect, support, and promote the park and the National Park System (e.g., politically, financially, through volunteer activities).
- Successfully plan their visits and orient themselves to facilities, attractions, features, and experiences.
- Behave in ways that do not hurt themselves or park resources.
- Enjoy themselves, have memorable experiences, and go home feeling enriched.
- Understand the park's significance and the park's primary interpretive themes.
- Experience programs, media, and facilities that enhance their educational experiences.
- Learn about the fragility of the park and threats to its resources.

El Malpais National Monument – Primary Interpretive Theme

The many conditions and unusual environments of El Malpais National Monument have created a diverse wilderness providing varied opportunities for exploration, discovery, and solitude.

Glacier Bay National Park and Preserve – Long Range Interpretive Plan

Vision - Glacier Bay is a globally significant marine and terrestrial wilderness sanctuary—a place that offers human solitude and a remote wildness that is rapidly disappearing in today's world. Glacier Bay is a place of hope—for the continued wisdom, restraint, and humility to preserve samples of wild America, the world as it was. Glacier Bay is part of one of the largest internationally protected Biosphere Reserves in the world, and it is recognized by the United Nations as a World Heritage Site.

Theme - Glacier Bay is a place of hope—for it preserves a sample of wild America.

Subthemes - (a) Glacier Bay is one of the few remaining intact ecosystems left on the globe. (b) Here is a place to experience wilderness on its own terms.

Hawaii Volcanoes National Park – Interpretive Theme

Hawaii Volcanoes National Park provides an opportunity for people to experience the values of Hawaii's diverse wilderness; the park's designation as a World Heritage Site and International Biosphere Reserve attests to its importance as a benchmark for monitoring environmental change.

Isle Royale National Park – Interpretive Theme

Isle Royale is one of 380 National Park units and part of the National Wilderness Preservation System, which together protect and provide enjoyment of this nation's natural, cultural, and wilderness resources.

Mount Rainier National Park – Interpretive Theme and Subthemes

- Mount Rainier’s pristine wilderness has ecological, social, scientific, educational, recreational, and cultural value. The value of Mount Rainier’s wilderness increases exponentially as areas outside the park are developed and open space is lost.
- By law, Mount Rainier wilderness is managed to retain its primeval character and natural conditions, and to preserve wilderness as a special place for people to examine their relationship to the world.
- The park’s management of natural resources over the past century mirrors American society’s changing understanding and appreciation of wilderness values.
- Mount Rainier wilderness is a source of inspiration, providing boundless opportunities for exploration, solitude, contemplation, and physical and mental challenge.
- The survival of the park’s wilderness depends on individual and societal commitment to the idea of wilderness, a stewardship ethic, and appropriate visitor use and behavior when in wilderness areas.

Petrified Forest National Park - Comprehensive Interpretive Plan

Park Mission - Petrified Forest National Park preserves, protects, and interprets a globally significant example of a Late Triassic ecosystem and a continuum of human use in a high desert/short grass prairie environment. It preserves wilderness values for recreation, solitude, natural quiet, long-distance views, and night skies. It provides outstanding opportunities for scientific research and education.

Park Purpose - The purpose of Petrified Forest National Park is to provide opportunities to experience, understand, and enjoy the Petrified Forest and surrounding area in a manner that is compatible with the preservation of the park’s resources and wilderness character.

Resource Significance - The park contains over 50,000 acres of parkland designated and managed as wilderness.

Primary Interpretive Themes

Wilderness - Wilderness in Petrified Forest National Park, one of the first proclaimed in the United States, allows natural processes to continue undisturbed, and to be experienced by visitors on nature’s terms—a significant chapter in America’s heritage, and legacy to global citizens.

- Petrified Forest National Park offers opportunities for experiencing dramatic skies and weather patterns, long-distance views in excess of 120 miles, brilliant night skies, natural quiet, solitude, re-creation, and reflection.

Visitor Experience Goals - (a) Experience wilderness and wildness. (b) Enjoy solitude.

Shenandoah National Park - Comprehensive Interpretive Plan

Significance of Shenandoah National Park - Park significance clearly defines the most important things about the park’s resources and values. Significance statements describe the distinctiveness of the combined resources in the park including natural, cultural, scientific, recreational, spiritual, and other values. Significance is not the same as an inventory of significant resources. Park significance is important in identifying resource management and protection priorities, identifying primary park wide interpretative themes, and in defining the kinds of visitor experiences most appropriate to the park.

- The park has become a sizeable “natural area” with large areas of designated wilderness and is an outstanding example of the Blue Ridge/Central Appalachian biome.

Goals - Goals describe management’s intent in offering interpretive and educational programs and services. They are statements that describe opportunities for the public and suggest how interpretation may change

the way the public, including organized groups, will think, feel, or act as a result of their park experience. Goals are derived from overall management objectives and are long-range. The NPS Strategic Plan established four mission goal categories. Interpretation and Education services primarily fall under Mission Goal II: Provide for Public Use and Enjoyment and Visitor Experience of Parks. National Park Service Strategic Plan goals are the basis for preparing park strategic plan goals.

National Park Service Mission Goal I: Preserve Park Resources

- Mission Goal Ia: Natural and cultural resources and associated values are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.
- Shenandoah National Park Long-term Goal Iao: By September 30, 2005, 90 percent of changes to natural and cultural resources in wilderness and backcountry areas caused by visitor behavior are within acceptable levels.
- Mission Goal Goal Iao.1 Wilderness and backcountry leaders and users demonstrate outdoor skills and ethics through the Wilderness education program and its multiple partnerships.

Visitor Experience Statement - The Visitor Experience Statement relative to interpretation defines how the interpretive process will facilitate a physical, intellectual, and emotional experience based on previously described themes and goals.

The Visitor Experience Goals in Shenandoah National Park should incorporate the Visitor Profile, and all goals must be construed to include all visitors by overcoming barriers of physical ability, language, and cultural differences in an effort to serve our diverse population.

The visitor experience in Shenandoah National Park should directly reflect its purpose and significance. To that end, the Interpretation and Education Division will facilitate opportunities for the visitor to:

- Have a traditional “national park experience.”
- Experience recreation and re-creation in the historic context of personal contemplative pleasure.
- Become aware of the conscious change in human use of a land.
- Observe an outstanding example of Blue Ridge/Central Appalachian Biome and areas of designated wilderness.
- Visit national register historic sites.
- Experience the Appalachian Trail and its associated values.

Issues and Influences Affecting Interpretation

Internal and external issues and influences significantly affect interpretation and education services at Shenandoah National Park. This includes any long-range Servicewide initiatives, influences outside the park, resource-based issues, and internal management issues. These help to determine direction and set priorities in interpretive services. This section lists the current issues and influences and describes the existing conditions that form the planning basis for the next five years.

Wilderness Interpretation and Education – The 2001 NPS Management Policies and Director’s Order #41: Wilderness Preservation & Management direct parks to include wilderness interpretation and education in interpretive planning in parks with wilderness resources. In addition, the approval of the NPS Wilderness Education and Partnership Plan is expected in 2001. Shenandoah National Park has become a national leader in wilderness education. In 1997, the park received a monetary donation from a local constituent specifically to develop a backcountry and wilderness education program for the park. This program has significantly grown to include many partners including the U.S. Forest Service, Bureau of Land Management, National Outdoor Leadership School, Leave No Trace, Inc., Boy Scouts of America, and the Carhart National Wilderness Training Center. A Natural Resource Protection Program (NRPP) grant funded a subject-to-furlough wilderness interpreter for a term of three years ending in 2001. In 2000, a park education specialist accepted the collateral responsibility of the National Leave No Trace Program Coordinator for the Park Service. Funding from the Washington Office supports both of the wilderness interpretation and education positions. The current level of programs and services will not be maintained without the conversion of the term position to permanent and the continued outside funding support.

Yellowstone National Park - Primary Interpretive Themes

Ecosystem - The greater Yellowstone area is one of the largest and most intact temperate ecosystems in North America; it supports an exceptional concentration and diversity of terrestrial and aquatic life. The Greater Yellowstone Ecosystem extends well beyond the park's boundary. It encompasses unique thermal features, the headwaters for many rivers, diverse habitats and life forms, research benchmarks, sustainable recreational and economic opportunities, and wilderness. It is conceptualized and viewed by the public in the contexts of contemporary issues, values, and personal meanings.

Wildness - Yellowstone is an extraordinary place where visitors can experience wildness. The Greater Yellowstone Ecosystem preserves a vital part of America's wilderness system. Experiences of wildness range from scenic driving and day hiking to backcountry hiking and camping to off-site experiences through the media, outreach programs, the Internet, and personal photographs, stories, and recollections.

3. Interpretive Program Outlines – Mount Rainier National Park, Interpretive Slide Program

Program Name: “From Fearsome to Fascinating” - Paul Sadin, Interpreter

Theme: People’s attitudes towards wild nature change over time. During this country’s short history, wilderness lands that were once avoided and feared became prized, and eventually preserved, for the pleasure, adventure, and education they provide.

Goals:

1. Get people interested and excited about the wild nature found here at Mount Rainier, in the Ohanapecosh area, and even right here in the Ohana campground.
2. Give people an idea of how and why the national parks (including Mount Rainier), the NPS, and the Wilderness Act were established, and what it is they have to offer visitors.
3. Paradoxical approach to resource protection: help visitors feel good about taking care of the park by emphasizing the behavior of tourists one hundred years ago.

Objectives:

1. At least thirty-three percent of visitors in attendance will seek one new way of enjoying or appreciating the park.
2. Fifty percent will be able to name at least two possible uses of wilderness.
3. Eighty percent will recognize that Ohanapecosh campground is in a national park.

Outline:

I. Introduction

1. To myself, to naturalist division, to interpretive activities
2. Intro to program: How much wilderness here in MRNP?
3. Seatco legend
4. Who has a story of their own to tell?

II. Why Wilderness Was Once Feared and Avoided (begin slides)

1. Fear of the unknown is natural: tell story of nighttime hike to Tolmie Peak.
2. Wilderness as a barrier to travel.
3. Wilderness as a threat: wild animals; getting lost.
4. Wilderness can be intimidating: tell story about Louisa, “It’s too green.”
5. Wilderness as evil.

III. Wilderness in American history

1. First arrivals: Bradford quote.

IV. The fruitful wilderness

1. Loggers, hunters, miners, and mountain men
 - a. Robert Service quote from “Spell of the Yukon.”
 - b. Colter and Bridger stories about Yellowstone wilderness.
 - c. Hayden expedition and formation of Yellowstone National Park.
2. Yellowstone tourists of the 1800s—trashing the wilderness: they came in spite of the wilderness, not because of it.
 - a. James Gregory’s journal re: Yellowstone tourists, and: “Our men made Old faithful useful as well as ornamental.”
3. Yosemite tourists at Glacier Point.
4. Burroughs and Muir: “Climb the mountains and get their good tidings.”
5. New attitudes towards nature: the outdoor life as cure-all.

V. Wilderness at Mount Rainier

1. Native tribes finding uses of the park
2. Coal in the Carbon River Valley
3. Mineral springs and hot springs

4. Adventuring and camaraderie
5. MRNP: 1899 – NP as playground

VI. Formation of the NPS and the 1964 wilderness Act

Is there any real wilderness left?

VII. Finding your own wilderness at MRNP

- I. You don't have to Climb...hike...etc. to find it: simply use your senses—all of them (with music).

Good night.

3. Interpretive Program Outlines – Shenandoah National Park, Interpretive Walk

Program Name: Fox Hollow Hike - Gloria Updyke

Theme: Shenandoah National Park's wilderness history challenges us to reevaluate our definition of wilderness.

Goals: Audience will understand the importance of federally designated wilderness in Shenandoah, recognize their connection to wild lands, and be inspired to become stewards of wild lands.

Objectives: The audience will be able to:

1. Explain their own definition of wilderness.
2. Define wilderness according to the Wilderness Act.
3. Identify the National Wilderness Preservation System.

Purpose: To understand the definition of designated wilderness and determine what it means on a personal or individual level.

Materials and References:

National Wilderness Preservation System map
National Park System map
Quote cards

Outline

I. Introduction (Visitor Center or Terrace)

Gloria Updyke, welcome to Shenandoah National Park.

II. Theme

Naturalist John Muir once said "I went out for a walk and finally concluded to stay out till sundown, for going out, I found, was really going in." Today as we head out for a hike, or head into the park, we're going to see if we can discover the sense of wilderness that he was referring to when he said that he was really going *IN*.

- Shenandoah National Park (SNP) challenges us to reevaluate our definition of wilderness. We're going to explore these ideas as we explore the Fox Hollow Trail and its past. And what we discover here, you'll be able to find throughout your explorations in the park.
- Where is audience from? Name a national park in your state, rest of us guess state.
- Do you know a designated wilderness area in your state? (none in CT, RI, MD, DE, KA, IA)
- Show map, National Wilderness Preservation System
- SNP has 80,000 acres (of 197,000 acres) designated wilderness; define later.
- How many think of SNP as wilderness? May or may not fit your definition. Each of us will have different answers, different values, and that's okay. Think about what wilderness means to you on way to next stop.
- Walk logistics (1 hour, 1.3 miles), bring water, safety.

III. View (Top of Fox Hollow Hill)

- Audience definitions of wilderness. Experience, place, natural, without humans, adventure, challenge, risk, etc.
- My definition, Organ Pipe.
- Is SNP wilderness? Small park, close to D.C., millions of visitors. SNP challenges us to reevaluate what wilderness is.
- Was this area always wilderness? No. Native Americans (probably thought of as home rather than wilderness.)
- Pass out quote cards. Have visitor read: Early settlers: "Wilderness is a damp and dreary place where all manner of wild beasts dash about uncooked!" —*Anonymous*
- Wilderness was a place to be conquered, feared, not preserved.

- Fox family right here, walking through their farms. Thomas and Martha Fox settled in 1850s. We'll be seeing signs of their descendents, people like Winfield Fox, who owned most of what the trail covers when the park was becoming authorized and established, 1926-36.

Lemuel Fox was a young man in the 1920s as the park was being established. He farmed these fields on his uncle Winfield's farm.

- Audience read: "All this was clear. You could see all the way across the mountain, all the way to the top of the mountain. All of it was cleared fields." —*Lemuel Fox Jr.*
- Imagine how it must have looked then. Think about why it looks different today. What changes have occurred?
- Although this part is not designated wilderness, as you hike and drive through the park, you will see similar signs of people who lived in almost all of what is now park, whether wilderness today or not.

IV. Trail Post

- Hiking safety: explain to read metal bands to avoid getting lost in SNP.
- Dickey Ridge Trail takes you to the Appalachian Trail (A.T.)—A.T. is a special trail that Benton McKaye (visionary who came up with idea to create A.T. in 1920s) envisioned as traversing a protected wilderness belt along crest of Appalachians. Even in East, can have (linear) expanses of wilderness (2000 miles A.T.)
- Notice brushy nature ahead. Notice when that changes.

V. Where brush changes to open woods

- Former boundary (between fields, pasture, etc.)
- Can you see the boundary/fenceline, or the fallen gatepost?
- Walking down old county road toward Front Royal (pre-Skyline Drive). Foxes and Carters (of next door orchard) used it to get to town. Their buildings are gone (several houses for extended family and neighbors, barns, outbuildings), but can still discern old fields/pastures (point these out along the way). Also can see wire and stone fence along south side of old road (now trail) that kept the hogs and/or cattle where they belonged. (Dickey Ridge Visitor Center was a dining/dance hall built in cornfield 1937-38).

VI. Sycamore Tree

- Was a lone shade tree in open pasture, the only tree on the hill then (says Lemuel Fox). Large spreading tree surrounded by smaller confined trees—see this throughout park.
- Unlike some wilderness places, such as Alaska, people lived/farmed throughout SNP (but it was NOT denuded wasteland, it was fertile, but rocky right here).
- Forest succession. Virginia Pine, Sassafras, and Locust are pioneer species that come up first in old fields. See a lot of it here and throughout park. Eventually, these young small species will be replaced with bigger longer lived—oaks, hickories. Through forest succession, the forest has grown back enough for some areas now to be designated wilderness.
- Audience read: "Perhaps then, wilderness will become something as humane as it is natural, as much within us as it is around us." —*Kim Heacox, Visions of a Wild America*
- Does this spot feel like wilderness? Why or why not? Is SNP wilderness?
- Wilderness designation gives protection beyond what park service or forest service can provide—must be managed with different focus/goals.
- For places, society (and Congress) deems especially valuable and worthy of protection.
- Audience read: "A wilderness, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain . . . an area . . . retaining its primitive character . . . with, outstanding opportunities for solitude or a primitive and unconfined type of recreation." —*Wilderness Act of 1964*
- Is SNP untrammelled by man? Primitive character? Outstanding opportunities for solitude and recreation?
- Let's walk a little further and think about it.

VII. Foundation Hole

- A barn of Edgar Merchant, neighbor of the Foxes, had an apple orchard. On his property for short stretch.
- Eastern Wilderness Areas Act addressed areas in Eastern United States.
- Voices for SNP wilderness: Potomac Appalachian Trail Conference, Wilderness Society, SNP superintendent.

- Audience read: “Areas shall be managed to promote and perpetuate the wilderness character of the land and its specific values of solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation.” —*Eastern Wilderness Areas Act 1975*
- Show SNP wilderness area map.
- 1976: SNP had 80,000 acres designated.
- Managed by park, but added protection of Wilderness Act.
- Audience read: “We recognized, through its relatively small size . . . that our wilderness area was not of the highest order . . . while not supreme, we will NOT allow its primeval character, and its opportunities for solitude, inspiration, and physical and mental challenges to decline. Furthermore, we will strive, and might be able, to improve its overall quality.” —*Superintendent Jacobson, Shenandoah, 1976*
- SNP—conscious choice to let nature return. People lost their homes (not always willingly). The people who built these rock piles, the people whose graves you saw, but now have a park to enjoy. Can honor their sacrifice by taking care of SNP today.

VIII. Junction with Dickey Ridge Trail

- Audience read: “The mountains . . . offer a fighting challenge to heart, soul, and mind . . . they will keep alive in our people the spirit of adventure . . . A people who climb the ridges and sleep under the stars in high mountain meadows, who enter the forest and scale the peaks, who explore glaciers and walk ridges buried deep in snow, these people will give their country some of the indomitable spirit of the wilderness.” —*William O. Douglas*
- Maybe time for a revolutionary definition of wilderness—not think of wilderness as something separate from us, a boundary around us, but as a part of us, and us a part of wilderness, a place to respect and take care of, whether Alaska, Organ Pipe, SNP or own backyard.
- All our favorite places are unique, yet SNP’s wild lands are exceptionally unique. Reflects society’s changing definitions of wilderness from a dismal and hideous place to a place worthy of protecting.
- Audience read: “In wildness is the preservation of the world” —*Henry David Thoreau*

IX. Conclusion (Open Meadow)

- Controlled burn—question visitors about the need/impact of management activities on wild lands (burns, trail maintenance, scientific monitoring, policies re: things like flyovers, sound pollution, viewshed pollution, air quality, etc. Can they think of any more?)
- Can management activities affect how we view an area, both positive and negative, whether we consider it wilderness— consider the Forest Service clear cuts).
- Shenandoah National Park challenges us to reevaluate our definition of wilderness. By exploring Fox Hollow Trail and its history, we’ve explored a wild area and your own feeling and ideas about wilderness to take with you throughout your park visit and beyond.
- Thank for coming, mention other programs they can attend further into the park.
- Updyke read: “One final paragraph of advice: Do not burn yourselves out. Be as I am: a . . . part-time crusader, a half-hearted fanatic. Save the other half of yourselves . . . for pleasure and adventure. It is not enough to fight for the land; it is even more important to enjoy it . . . While it’s still here. So get out there . . . and mess around with your friends, ramble out . . . and explore the forest, encounter the bears, climb the mountains, bag the peaks, run the rivers, breathe deep of that . . . lucid air, sit quietly . . . and contemplate the precious stillness . . . Enjoy yourselves, keep your brain in your head and your head firmly attached to the body, the body active and alive, and I promise you this much: I promise you this one sweet victory over our enemies, over those desk bound people with their hearts in a safe deposit box and their eyes hypnotized by desk calculators. I promise you this: you will outlive them all.” —*Edward Abbey*
- Be wild, and be safe. And like John Muir, you may find that in going out for a walk, you are really going *in*.

3. Interpretive Program Outlines – Shenandoah National Park, Interpretive Walk

Program Name: “At Home in the Wild” Limberlost Hike - Laura Cheek, Education Specialist

Theme: If home is where the heart is, then, after exploration, wilderness can be our home.

Goal: Create an experiential connection with the Limberlost area and Shenandoah NP that will lead to a personal commitment to preserve wild lands.

Objectives: At end of hike, participants will be able to:

1. Define wilderness according to 1964 Wilderness Act.
2. Identify National Wilderness Preservation System.
3. Differentiate between wilderness and wild lands.
4. Relate history of impact and preservation in what is now Shenandoah National Park.
5. List benefits of preserved wild lands.

Purpose: Increase awareness of and connection to wild lands to help preserve them for present and future generations, and wild animals.

Materials and References:

Book - *Girl of the Limberlost*

Edward Abby or Howard Zahniser quote

Hand lenses

National Wilderness Preservation System maps

Pens

Shenandoah National Park postcards

Wilderness Act quote

Outline:

I. Introduction - Parking Lot

- A. Welcome
- B. Anyone been on Limberlost trail before?
 1. Trail/walk details (many habitats, 1.2 miles, stroll not hike)
 2. Speak up with questions, comments
- C. Anybody know why trail called Limberlost?
 1. Named by Pollucks, associated with early 1900s Skyland Resort
 2. From popular book and movie in early 1900s
 3. Begins with a girl asking her mother to cut down old trees on their property in order to pay her way to school; you'll understand the significance of that story to this place later on in the walk.
 4. Limberlost the name of a wetlands in northern Indiana near author's home; a man named Limber disappeared there.
- D. We won't be getting lost here
 1. But do encourage you to explore, to test and break boundaries of comfort, physically, mentally challenge yourself.
 2. Reach out to touch plants, bark, rocks—not animals! Please don't pick plants (photo or describe instead) or take rocks; please stay in center of trail.
 3. Please be gentle, follow the philosophy of Leave No Trace—try to make sure others behind us will not know we were here.
 4. Hand out magnifying lenses; look at things close up, especially look for animals' homes.
- E. Any of you at all nervous about going on this hike?
 1. (If no – “glad you have confidence in yourselves and me”)
 2. How about if we went off trail? If you went hiking on own?
 3. To be honest, I feel more comfortable camping by myself out in the wilds than I do driving through downtown Washington DC.
 - a. I feel more at home.

- b. Yet definitely an element of fear and challenge—wouldn't want that to be taken away, for me that is part of wilderness.
- 4. Wild lands/wilderness has connotation of adventure, unknown, risk.
- 5. We will be exploring wild lands and wilderness, how we fit in, how we feel at home or don't.
- F. As we start off, look for things that are familiar to you and think about what makes a place home? What makes you feel at home? I'll ask for your thoughts at next stop.

II. First Bench - Familiarity Leads to Preservation

- A. See anything familiar? Identify .
- B. Does familiarity make a place feel like home?
 - 1. What else makes place home?—Discuss.
 - 2. Want to protect one's home?
- C. This place was home to people—will see evidence of that—look for.
 - 1. Protected by them for them.
- D. Who protects and preserves now? NPS does for you.
- E. This place thought to be special before NPS.
 - 1. One person singled out this place, the Limberlost, as special.
 - 2. Mrs. Pollock paid money to protect one type of tree— hemlock.
 - a. Paid \$1,000 for logging rights for 100 trees.
 - 3. Point out small one—identify features, feel softness as walk by.
 - 4. Hemlocks in decline—why? Talk about later—clue under needles close to trunk—some of you might be familiar with what is affecting the hemlocks.
- F. Why do people preserve/protect places besides their homes?
- G. Look around and think about as we go on—we'll talk about at next stop.

III. Fourth Bench - Why Protect Places?

- A. Discuss their answers.
- B. Experience, future generations, habitat (Blackburnian warbler breeding here—state rare bird), wildlife, endangered species (rare millipede, orchid, sedge), resources, history, etc.
- C. Walk to and point out apple and cherry trees—what do these trees tell us?
 - 1. People planted these trees, so made home here.
 - 2. History, human story.
- D. Walk to locust tree—“disturbed” tree—comes into areas disturbed naturally or by humans—look for in park—likely shows an area where people lived and worked.
- E. Even though people are gone, still have evidence they were here.
- F. Protected areas preserve human stories.
- G. Let's walk to another tree that tells story of other creatures that now make their home here.
- H. Walk to bear claw marks—wildlife habitat—even if don't see animal, see signs that they are there.
- I. The ultimate protection of an area is wilderness designation.
- J. What is wilderness? Think about as go to next stop—we'll discuss and define.
- K. Notice change in environments (boardwalk over wetland, enter into hemlock grove).

IV. Wilderness – Bench After Boardwalk

- A. Does this feel like wilderness? Why/why not?
- B. Wilderness is an experience as well as place.
- C. One definition of wilderness overriding in USA, in the Wilderness Act.
 - 1. Hand out definition of wilderness to visitor to read.
 - 2. Discuss word “untrammeled.”
- D. Hand out maps of NWPS.
- E. Facts, figures, percentages.
 - 1. Any wilderness in your state? Wilderness in all but six states in USA (Connecticut, Rhode Island, Kansas, Maryland, Iowa).
 - 2. How much of USA is wilderness? (45%—over 100 million acres; half is in Alaska).
 - 3. NPS manages most wilderness .
 - a. 4 parks—which one most wilderness? (Shenandoah, Great Smokey Mountains, Yellowstone, Glacier).

- b. NPS has most, others have no designated wilderness (have proposed wilderness).
 - c. Are the others wild? Fit definition of wilderness?
- 2. Not all wild lands designated wilderness.
- 3. Any less important?
- E. Let's experience part of wilderness, sense of solitude—silent walk until across bridge.
 - 1. Does absence of human noise make the place feel more like wilderness?
 - 2. Think about what do you get from wild places.
 - 3. Count how many different sounds you hear.

V. Bench After Bridge - Wilderness Benefits

- A. How was that?
 - 1. What did you hear?
 - 2. How did you feel? Comfortable? At home?
- B. Is it worth having places where we can have these experiences?
- C. How do we benefit from wild places? (resources, experience, get away, future generations, history...).
- D. Walk to regenerating tree –represents Shenandoah's unique history of preservation.

VI. Regenerating Tree (nursery log) - Junction With White Oak Trail - Return of Wild

- A. Nature returns after impact.
- B. In Shenandoah, conscious choice to let nature return—people gave up their homes (some willingly, some not) for the general public, us, to be able to experience a wild place; wilderness designation in Shenandoah in 1976.
 - 1. Show Shenandoah National Park wilderness map.
 - 2. Strong voices and difficult choices led to designated wilderness here.
- D. Yet changes continue—our impacts.
- E. Walk along White Oak Canyon Trail—look for human influences.

VII. On Trail in Hemlocks

- A. Hemlocks—wooly adelgid
 - 1. Seen in Pacific Northwest in mid-1920s.
 - 2. Appeared in Virginia in 1950.
- B. Impacts from far away
 - 1. Air—ozone
 - 2. Sound
- C. What can we do?
- D. Think about as walk on a bit.

VIII. At Open Space in Woods - Postcards Home

- A. Ask them to go off trail, find a comfy spot, spend 5 minutes writing a postcard home—something they see, feel in moment, what is special about this place that needs to be preserved? How can we help preserve it?
- B. Collect cards to send home later.
- C. Post cards will arrive at your house after you return, but hopefully will bring back memories of this place that you have explored and become more familiar with.

IX. Leave No Trace

- A. Go off trail back to Limberlost trail (over fire road).
- B. How can we go off trail so that we aren't hurting/impacting the land? So that no one would know we went that way?
 - 1. Watch your feet.
 - 2. Step on durable surface, not plants.
 - 3. Spread out, don't walk in line.
 - 4. Be quiet.

X. At Trail

- A. How was that? Easy? Difficult?
- B. Watch your feet as we continue on trail. Stay on durable surface of trail, but also keep eyes open for other life besides our own.

XI. Conclusion – Last Bench

- A. The postcards will arrive to your home after you do—hope they bring back strong memory of place, time, special experience.
- B. Hope these memories inspire you to expand your sense of home, to include wild places so that you will be inspired to explore and protect.
- C. What places will you explore and protect that are special to you?
- D. What choices will you make to keep wild lands wild?
- E. Edward Abbey quote: “The love of wilderness is more than a hunger for what is always beyond our reach; it is also an expression of loyalty to the earth, the only home we shall ever know, the only paradise we ever need...”
- F. Or Howard Zahniser quote: “We have come to realize that we ourselves are creatures of the wild, that in wilderness we are at home, that in maintaining our access to wilderness, we are not escaping from life but rather are keeping ourselves in touch with our true reality, the fundamental reality of the universe of which we are part.
- D. Be wild, and be safe.

Wilderness Act:

Declares the “policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain... an area of Federal Land retaining its primitive character and influence, without permanent improvements...” with “outstanding opportunities for solitude or a primitive and unconfined type of recreation.”

—Congress, *Wilderness Act* 1964

3. Interpretive Program Outlines – Shenandoah National Park, Interpretive Hike

Program Name: “Rose River Loop” - Laura Cheek, Education Specialist

Theme: Preserving wilderness is your choice.

Goals: Explore wilderness physically, mentally and emotionally; develop connection with Shenandoah National Park’s wilderness; become stewards of all wild lands; understand that preserving wilderness is a choice people can make through their actions within and outside of designated wilderness.

Objectives: The audience will be able to:

1. Explain a personal definition of wilderness.
2. Define wilderness according to the Wilderness Act.
3. Identify the National Wilderness Preservation System.
4. Explain the concept of Leave No Trace.
5. Identify and explain appropriate and inappropriate human use in wilderness according to Wilderness Act and/or their personal opinions.
6. Explain the benefits of wilderness in Shenandoah National Park.

Purpose: To introduce the concept and definition of wilderness and that exploration of wilderness leads to connection, awareness, understanding, and ultimately, stewardship.

Materials and References:

Dip net and Styrofoam trays
Hand lenses
NWPS maps
PH kit
Paper (large index cards) for Renga poetry
Pens
Quote cards
Shenandoah National Park wilderness map
1920 survey map and assessment review
Wilderness Act quote

Outline (by stop):

I. Introduction - Fisher’s Gap Parking Lot

- A. Introductions
- B. Welcome to park.
- C. Walk details (4 miles, 3 1/2 to 4 hours) - going on “A Walk on the Wild Side.”
- D. Safety - bring water, snacks if desired.
- E. We will experience Shenandoah in a different way, a way most people do not.
- F. Go to a part that most people don’t see—Shenandoah’s wilderness.
- G. Please feel free to speak up, to ask questions, to explore physically and mentally.
- H. I will be asking many questions:
 1. We won’t be able to answer them all – don’t have time to!
 2. Offer you food for thought, to contemplate as you continue exploring
- I. Never know what we are going to discover.
- J. Kim Heacox quote— “In beautiful scenery you see more than you can absorb. In wilderness, you absorb more than you can see.”
- K. Be ready for anything—keep senses open.

II. Trailhead - Introduction

- A. Walk details again
- B. Safety (if necessary):
 1. Be careful.
 - a. Slippery rocks

- b. Wildlife - bears, deer, snakes, ticks
- 2. Leave No Trace
 - a. Leave no evidence of your presence
 - b. How can we leave no trace?
 - c. Stay on trail
 - d. Pick up trash
 - e. Talk more about later on
- 3. Enjoy
- E. We will walk for about 15 minutes before first stop
- F. Think about your definition of wilderness
- G. Let me know if you think we have entered wilderness

III. Horse Trail Junction - Designated Wilderness

- A. Are we there yet? Are we in wilderness?
 - 1. What is wilderness to you?
 - 2. An experience as well as a place
 - 3. Actually we crossed the boundary into designated wilderness two switchbacks back.
 - 4. Feel any different?
- B. Designated wilderness
 - 1. An ultimate definition of wilderness
 - 2. 1964 – have visitor read part of Wilderness Act.
 - a. Discuss “trammeled.”
 - 3. Wilderness is the most protection our government can give to public land.
 - 4. 1976 - 80,000 acres designated in Shenandoah National Park.
 - 6. Think about:
 - a. Does Shenandoah fit this definition?
 - b. Why not wilderness in 1964? We will talk about later.
- C. Part of National Wilderness Preservation System – show map.
- D. How much wilderness in USA? About 4.5%, 5 million acres, half in Alaska.
- E. Four federal agencies manage wilderness on public lands - NPS, USFS, F&W, BLM.
 - 1. NPS manages most.
- F. Which park has most wilderness? Shenandoah, Great Smoky Mountains, Yellowstone, Glacier?
 - 1. Shenandoah does.
 - 2. Rest have none. Are they wild? Do they fit definition?
 - 3. Takes act of Congress to designate wilderness.
 - 4. Proposed wilderness in those other, but takes strong voices and difficult choices to designate wilderness.
 - 5. Strong voices and difficult choices here, but not elsewhere.
- E. Part of wilderness is solitude—to honor entrance into wilderness and to explore wilderness as an experience, walk next section in silence.
 - 1. About 10 minutes – Does it feel more like wilderness? How many different sounds do you hear?
Will stop at next cement marker.

IV. Next Cement Trail Marker

- A. How was that? What did you hear?
- B. Read Sigurd Olson silence quote or Sue Halpern quote.
- C. Able to hear and see animals that call this place home.
- D. Part of significance of wilderness is preservation of habitat.
- E. Natural quiet an issue in national parks and all wild places now – how can we preserve natural quiet?
- F. Some things, such as sound, don’t stop at wilderness boundary – hard to keep some non-wilderness qualities out.
- G. Think about some other things might affect wilderness quality/experience that don’t stop at the wilderness boundary while we walk to next stop.
- H. Keep senses open

V. By Rose River - LNT – Human Effects on Wilderness From Without and Within

- A. What effects come from outside? Hold onto thoughts while we explore this stream.
- B. Stream study
 1. How does this stream look? Let's take closer look.
 2. Explore for five minutes and bring back what is found (descriptions fine too); be careful of self and creatures.
 3. Pass out nets and trays.
 4. Ask for help with PH test.
 5. Gather and share discoveries.
 6. Healthy or not? What would you expect?
 - a. Water quality
 - b. Acid rain/ozone effects—don't stop at wilderness boundary—choices we make outside of wilderness (i.e., cars we drive, products we buy) can affect health of wilderness.
- C. Hemlock wooly adelgid
 1. Another impact from outside affecting streams in roundabout way.
 2. Dark Hollow named because of shade from hemlock.
 3. What has happened to hemlocks here?
 4. Wooly adelgid facts
 - a. Description
 - b. Native to Asia - first seen in North America in Pacific Northwest in early 1900s; seen in Virginia in 1950s; just made it into Maine.
 - c. Expect almost all hemlocks in lower elevations to die.
 - d. No natural predator
 - e. Causing streams to heat up, fish are affected, ground vegetation is changing.
 - f. What should we do? – Nonnative species brought by humans, yet natural in wilderness? – Think about if you were manager, what would you do?
 - g. Again, choices made outside of wilderness affect wilderness.
- D. Choices you make in wilderness make a difference too.
 1. This area, with hemlocks dying and letting more light in, we would expect to see more ground vegetation, like across the stream—why isn't there?
 2. Human trampling
 - a. I took you off the path.
 - b. Have people been here before?
 - c. What impact could this trampling have on the stream? erosion = turbidity
 3. "Durable surface" – better to sit and stand on rocks than soil.
 4. We are going back up to trail. How can we have the least amount of impact returning?
 - a. Stay on durable surface - rocks.
 - b. Disperse or stay on already impacted social trail.
 - c. Reduce possibility of erosion (no cutting switchbacks).
 5. Going to be walking by waterfalls—we'll pause, but not walk down—look for reasons why when we get there—has to do with reasons we talked about here.
 6. Think about how choices we make affect wilderness quality.

VI. At Cement Trail Post (at confluence of Rose River and Hog Camp) - People in Wilderness

- A. Why didn't Shenandoah classify as wilderness in 1964
 1. Shenandoah was actually proposed in the first draft of the Wilderness Act (show map).
 2. People living here at authorization, still lots of evidence of impact.
 3. Can there be evidence of past human use in wilderness area? What about prehistoric?
 4. Forty years after establishment of park, Congress passed legislation designating wilderness in Shenandoah.
 - a. Show Shenandoah National Park wilderness map.
 - b. Forty percent of Shenandoah National Park designated as a mosaic (why? Politics...)
 5. Read Superintendent Jacobson quote (strong voice for wilderness here).
 6. What is value of wilderness in the East? More or less equal to wilderness in Alaska?

- B. Continues to be impacted here.
 - 1. Many visitors (point to “no camping” sign).
 - 2. What is human place in wilderness?
 - 3. Would it be a good thing to have a designated area where no human ever goes?
 - 4. In Croatia there are two national parks where only researchers are allowed, no recreation.
 - 5. Look for signs of impact as we continue on.

VII. At Bridge - How Deal With Impact

- A. What did you see?
 - 1. Copper mine in late 1800s
 - a. Tailings – “waste” rock left behind from copper mining.
 - b. Cement block part of mine operations – too heavy to carry out so left behind?
 - 2. Bridge we just walked over
 - a. New – old one washed out in flood of 1995.
 - b. Evidence of powers out of human control – part of wilderness .
 - c. But created dilemma – well used trail, yet now in wilderness – what should be done?
 - d. What would you have done if you were manager?
 - 1) Discuss reactions.
 - e. Park management decided to replace, used helicopter.
 - f. Typically no mechanized equipment allowed. Trail crew here uses hand-powered tools (except for special considerations for safety and resource preservation – i.e., use chain saw to clear trail so that hikers don’t trample vegetation going around fallen log).
 - g. Constant debates about use in wilderness (what if someone hurt? etc.)
 - h. Always will be questions and compromises – What are your opinions, feelings, and decisions? What level of wilderness do you want to see preserved? What is the balance between preservation and enjoyment?
 - i. Continue to think about – Your voices are the ones that must be strong now.
 - j. Read Aldo Leopold quote.
 - 3. Now you must be strong physically – We are about to experience another component of wilderness—“physical challenge.”
 - 4. Read Muir quote.

VIII. Flat Rocks Along River – Wilderness As Renewal

- A. Now let’s take some time to let go of the controversial issues and explore a different aspect of wilderness, as a place for inspiration, reflection, and relaxation.
- B. Wilderness experience has inspired many people to try to represent through art or writing and to work for the preservation of such experiences.
- C. Introduce and structure Renga poetry.
 - 1. An opportunity to be aware of this place in this moment, to record your observations, thoughts, and feelings.
 - 2. Sit visitors down in circle (or two circles if many people); hand out paper and pens; ask each person to write down one line—it doesn’t have to be a complete sentence—a thought, feeling, observation; then pass the paper on to the next person. Take the paper from the person on the other side, and add another line under the line they wrote; continue writing and passing paper until receive original paper back.
- D. Conclude with thoughts about opportunity for spiritual renewal, for “re-creation”, for peace, calm, reflection.
- E. Hold onto poems, we will share a few of the poems during breaks as we continue up hill.

IX. Hemlock On Top of Rock

- A. Share poems and comment.
- B. Talk about wonder of unknown, wonder of unseen. Do we have to know what it is to appreciate it? Do we have to see it to appreciate it?
- C. Read Sigurd Olsen quote.

X. At Fire Road - Conclusion

- A. Are we still in wilderness?
 - 1. No – out of designated wilderness.
 - 2. Show map of trail with marked wilderness boundary.
- B. Has your definition of wilderness changed? Have you “absorbed more than you can see”?
- C. Wilderness has been, and still is, a choice.
 - 1. Decisions in the past have resulted in wilderness here.
- D. Show survey map of 1920s with houses marked.
 - 1. Many people lived here, took care of place according to their time.
 - 2. Now here we are.
- E. Show assessment of land – monetary value assigned.
 - 1. In 1920s this is the value put on the land.
 - 2. What value does it have now? To you? To the wildlife? To the world? To the future?
 - a. Humans have made difficult choices and sacrifices to invite wilderness back as the ultimate protection—a place of both great freedom and great restraint.
 - 3. Now the choice is up to us, up to you.
 - a. Your decisions both inside of wilderness (where you put your feet, what you take out or leave behind) and outside of wilderness (what car you drive, what legislation you support) affect the health and preservation of wilderness.
 - b. What choices will you make?
- F. Fire road will lead us back to Skyline Drive, a transition out of wilderness, though hopefully you will take some of the wilderness back within you.
- G. Thanks for coming! Be wild, and be safe.

XI. Give visitors options for further exploration on their own/walk with visitors back to Fishers Gap overlook.

Quotes Referenced:

Declares the “policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain... an area of Federal Land retaining its primitive character and influence, without permanent improvements...” with “outstanding opportunities for solitude or a primitive and unconfined type of recreation.”

—Congress, *Wilderness Act 1964*

How often we speak of the great silences of the wilderness and of the importance of preserving them and the wonder and peace to be found there. When I think of them, I see the lakes and rivers of the North, the muskegs and expanses of tundra, the barren lands beyond all roads. I see the mountain ranges of the West and the high, rolling ridges of the Appalachians. I picture the deserts of the Southwest and their brilliant panoramas of color, the impenetrable swamplands of the South. They will always be there and their beauty may not change, but should their silences be broken, they will never be the same.

—Sigurd Olson

People talk about the silence of nature, but of course, there is no such thing. What they mean is that our voices are still, our noises are absent.

—Sue Halpern

We recognized, through its relatively small size, its already established levels and patterns of visitor use... that our wilderness area was not of the highest order...while our wilderness is not supreme, we will not allow its primeval character, and its opportunities for solitude, inspiration, and physical and mental challenges to decline. Furthermore, we will strive, and might be able, to improve its overall quality.

—Superintendent Jacobson, Shenandoah National Park, 1976

Thus always does history, whether of marsh or market place, end in paradox... all conservation of wilderness is self-defeating, for to cherish we must see and fondle, and when enough have seen and fondled, there is no wilderness left to cherish.

—Aldo Leopold, *A Sand County Almanac*

Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop off like autumn leaves.

—John Muir

I named this place Listening Point because only when one comes to listen, only when one is aware and still, can things be seen and heard. Everyone has a listening-point somewhere. It does not have to be in the north or close to the wilderness, but some place of quiet where the universe can be contemplated with awe.

—Sigurd Olson, *Listening Point*

3. Interpretive Program Outlines – Shenandoah National Park, Interpretive Slide Program

Program Name: “The Wild Side of Shenandoah” - Laura Cheek, Education Specialist

Theme: Strong voices and difficult choices are vital to wilderness preservation.

Goals: Audience will understand the importance of federally designated wilderness in Shenandoah, recognize their connection to wild lands, and be inspired to become stewards of wild lands.

Objectives: The audience will be able to:

1. Explain own definition of wilderness.
2. Relate three different perspectives of wilderness throughout history.
3. Identify three strong voices for wilderness preservation.
4. Define wilderness according to the Wilderness Act.
5. Identify the National Wilderness Preservation System.

Purpose: To connect with wild places on an emotional level. Knowing that protected preserved natural land exists is important to our individual and national psyche; we can perpetuate and protect wild lands by the active choices we make in our daily lives.

Materials and References:

National Wilderness Preservation System map

National Park System map

Quote cards for audience to read (Bradford, anonymous, Muir (2), Wilderness Act, Eastern Wilderness Areas Act, Jacobson)

Outline

I. Introduction

- A. Laura Cheek, welcome, talk “The Wild Side of Shenandoah”
- B. Words from our sponsor – The Overlook
 1. Wilderness article
 2. Wilderness programs
 3. Jr. Ranger
- C. Safety information (if necessary)
 1. For how many is it the first time in Shenandoah National Park?
 2. For how many is it the first night in Shenandoah National Park?
 3. Rest of you can help me out.
 - a. What are some things to be careful about?
 - b. Deer, bear, snakes, ticks, fire, etc.
- D. Find out where audience is from.
 1. Name a National Park Service site in your state – rest of us guess state.
 - a. Only one state has none – Delaware.
 2. Raise your hand if you know of a designated wilderness area in your state.
 - a. Only six states have none – CT, RI, MD, DE, KA, IA.
- E. At this moment, we are very near some of the most amazing, unique wilderness in USA.
 1. Bottom of Dark Hollow (or identify according to amphitheater location)
 - a. No sign, no neon lights, no fence, might not even feel any different.
 - b. Yet special place – our society has decided has unique value, and has granted special protection to.
 2. Forty percent of Shenandoah National Park is designated wilderness.
 - a. This is what we’ll talk about tonight –how unique, how got here, how it is a part of you.
 - b. How many of you think of Shenandoah as wilderness?
 - 1) May or may not fit your own definition of wilderness.
 - c. Specific definition of wilderness here, designated wilderness, which we will define later.

- d. Designated wilderness is a designated place, with boundary around it, yet wilderness can be an experience too, or both, many definitions abound.
- e. What is wilderness? We all have own definition. Let's talk about that first.

II. Definitions of wilderness

- A. Audience definitions
 - 1. Summarize (i.e., experience, place, natural, without humans, etc.)
- B. My definition – Alaska
 - 1. Explain my story.
 - 2. A place and experience.
 - 3. Shenandoah National Park is a small park, close to D.C., millions of visitors.
 - 4. Shenandoah National Park changed my definition of wilderness – maybe change yours too.
- C. Shenandoah's wilderness more intriguing and more unique than Alaska wilderness.
 - 1. As unique as your big toe.
 - 2. You'll figure out why by end of program.
 - 3. To find out why secret of SNP is in your big toe, we need to find out why wilderness is here.
 - 4. Wiggle your big toe, we'll tell the story of Shenandoah's wilderness .
 - a. It's a result of strong voices and difficult choices.

III. History

- A. Has this area always been wilderness?
 - 1. No – had a series of changes, natural and human, that have affected landscape.
 - 2. Let's take a look through time at what Shenandoah National Park was like.
- B. Thousands of years ago
 - 1. Was this wilderness? Were people here?
 - 2. Native people lived here, made use of resources, left little evidence, not many people.
 - 3. Probably didn't think of this as "wilderness." It was their home.
- C. 400 years ago, early 1600s
 - 1. Come forward in time to when wilderness became a word, had a definition.
 - 2. What was happening in Virginia in the early 1600s?
 - 3. European settlement on coast
 - 4. Concept of wilderness
 - a. How think of wilderness?
 - b. Audience reads William Bradford quote.
 - c. Audience reads Anonymous quote.
 - d. Feared, to be conquered, not preserved, for most part.
 - 5. How could definitions of wilderness change from then to now?
- D. Mid 1800s, settlers move West
 - 1. Lured by endless lands, the frontier, the American dream and ideal, uniquely American.
 - 2. Homesteading
- E. 1890—paper read at World Exposition in USA stating "frontier gone", no wilderness left.
 - 1. Concern grew, mostly in growing cities, mainly in East, thought of losing something—a place and experience uniquely American.
 - 2. Strong voices spoke up for preserving lands still wild.
 - a. One voice in particular - John Muir.
 - 1) Story of Muir
 - 2) Audience reads Muir quotes.
 - b. Resulted in setting aside federal land for preserves and parks – National Parks and Forests.
 - c. Never came to Shenandoah, but without his voice we wouldn't be at this park tonight.
- F. Where were most national parks in early 1900s? – Out West.
 - 1. People went, but difficult to get to.
 - 2. Push for eastern parks – committees formed, voices spoke up.
 - 3. What was the result? – Shenandoah National Park.
- G. Shenandoah National Park
 - 1. Authorized in 1926
 - a. What was this place like? Was it still wilderness?

- b. No. Several thousand people lived here.
 - c. No bear, deer, or wild turkey here, though native to these mountains.
 - d. People moved up in 1800s as people moved out West.
 - e. People gave up their homes for this park, for this wilderness—its own fascinating story.
- 2. 1935 established as Shenandoah National Park, conserved for future generations.
 - a. Recreation and re-creation
 - b. Was it wilderness? People had left....
 - c. First Superintendent of Shenandoah made difficult choice.
 - 1) Was told to protect some homes and structures.
 - 2) Said no, let nature return and reign.
 - 3) Still controversial.
 - d. Voices for protected wild lands growing stronger still—change from 1600s!
- H. In 1920s first federal land declared wilderness, Gila National Forest, promoted by forester Aldo Leopold—but what is wilderness?
 - 1. Definitions debated, all the way to Congress.
 - 2. Resulted in congressional act, mainly written by wilderness advocate Howard Zahniser.
- I. The Wilderness Act – 1964
 - 1. Audience reads quote.
 - 2. This is designated wilderness.
 - 3. Protection beyond what NPS or USFS can provide—must be managed with different focus, different goals.
 - 4. We practice restraint as managers and individuals.
 - 5. Must be approved by Congress.
 - 6. Started National Wilderness Preservation System.
 - 7. Places our society deemed especially valuable and worthy of protection.
 - 8. Did Shenandoah fit?
 - a. Some said yes, some no.
 - b. Some strong voices said yes—Potomac Appalachian Trail Club, Wilderness Society, Superintendent at time.
 - c. Congress said no.
- J. Eastern Wilderness Areas Act – 1975
 - 1. Congress reinforced Wilderness Act definition of wilderness by restating that land did not have to be “pristine” but that imprint of man’s work had to be “substantially unnoticeable” and the area “primarily affected by the forces of nature.”
 - 2. Recognized importance of preserving representative parts of all ecosystems, especially near populated areas, as the ultimate land protection.
 - 3. Recognized importance of preserving cultural history.
 - 4. Audience reads quote.
 - 5. Did Shenandoah fit? Yes.
 - 6. 1976 - approx. 80,000 acres designated wilderness, forty percent.
 - a. Managed by park, but added protection of Wilderness Act.
 - b. Audience reads Jacobson quote.
 - c. A place our society has deemed especially valuable and worthy of protection, speaking up for and making sacrifices for.
 - d. In only 40 years, this area changed from non-wilderness to wilderness, nature reclaiming the land, evidence of human expansion diminished.

IV. Our Role

- A. 25 years have passed since wilderness established here, society continues to change.
 - 1. Who will be the strong voices now?
 - 2. You—please, all that are able, stand up for a few minutes.
- B. Why need to speak up for wilderness?
 - 1. Protected but not guaranteed as society’s needs and demands continue to change and different priorities prevail.
 - 2. Not much left to designate, especially with continuing pressures on natural lands.
 - 3. Some places wild, but not protected.

- a. Out of following four parks, which one has most wilderness?
 - 1) Shenandoah, Great Smoky Mountains, Yellowstone, Glacier?
- b. Answer - Shenandoah, the rest have proposed, but not designated, why?
 - 1) Political – needs strong voices and difficult choices.
 - 2) Congress hasn't acted on it yet.
 - 3) Have proposed wilderness areas, areas with pending wilderness designation.
4. How much wilderness in USA?
 - a. All audience represents land mass of USA (approximately 4.6 billion acres).
 - b. Sit-down activity
 - 1) Have all audience sit down (by clothes color or sitting location) until about four percent of audience is left standing – i.e., if 100 in audience, 4 left standing).
 - c. Those still standing represent the amount of designated wilderness in USA—about four percent.
 - d. Half of those standing, sit down, because two percent in Alaska – 50 million acres.
 - e. Half of those left standing, sit down (or one person left sit down but hold up arms and legs), because less than one percent east of Mississippi.
 - f. Last person point to own big toe, because that small part, size of big toe, represents the amount of designated wilderness in Shenandoah compared to the entire United States.
 - g. That's why Shenandoah's wilderness is as unique and valuable as your big toe
 - 1) Analogy: you don't always see your big toe, but it's there; you don't always think about your big toe, but it's there for you when you need it; don't always take care of your big toe, but it sure helps you walk forward and balance.
 - 2) The same is true for Shenandoah's wilderness: you don't always see the wilderness, but it's there; you don't always think about the wilderness, but it's there for you when you need it; you don't always take care of the wilderness, but it sure helps us move forward and to balance our society's conflicting desires.
 - 3) Like your big toe, Shenandoah's wilderness is part of a bigger system, the National Wilderness Preservation System, with designated wilderness in almost every state.
 - 4) Places of unique value with special protection.
 - 5) Not only places that preserve clean water, wildlife in natural habitat, endangered species, plants, but preserves an experience for us, even if we never go there physically.
5. How can you play a part?
 - a. Think of your favorite wild place. Is it designated wilderness? If not, should it be so? What will you do to keep your favorite wild place wild, as place and an experience?
 - b. Even though I am no longer in Alaska, it is a wild place that will always be a part of me, and I a part of it.
 - c. Now in SNP and now know Shenandoah has amazing wilderness, especially because it is in such a small park, 1 1/2 hours from DC, in a place millions of people visit every year.
 - d. My first summer here, I went into Shenandoah's wilderness and camped out overnight by myself—I saw no other people, I heard mostly wild animals with few planes, I felt powers beyond my own, I experienced unknown and fear (rattlesnakes and thunderstorms). I thought about how I fit in, what I get from wild places and what I can give to them.
 - e. Thought maybe it is time for a new concept of wilderness—not think of wilderness as something separate from us, a boundary put around, but as a part of us, and us a part of wilderness, as home—a place to respect and take care of—as it was thousands of years ago, whether AK, SNP, or your own backyard.
 - f. All of our favorite wild places unique, yet Shenandoah's wilderness is exceptionally unique—it reflects our society's changing definitions of wilderness from a dismal hideous place to a place worthy of protecting, of making difficult choices for and speaking up strongly for.
 - g. 100 years ago, an advocate of preserving natural places and experiences, Henry David Thoreau, stated, "In wildness is the preservation of the world."
 - h. More recently, an advocate of wild lands in the southeastern US, Wendell Berry, wrote, "In civilization is the preservation of wilderness."
 - i. It is up to you.

- j. As you leave, return to your home, walk on your big toe, think of the uniqueness of Shenandoah's wilderness, think of the importance of your own favorite wild place, and keep in mind this final question in the words of poet Mary Oliver: "Tell me, what is it you plan to do with your one wild and precious life?"

Quotes Referenced:

Wilderness is a damp and dreary place where all manner of wild beasts dash about uncooked!

—Anonymous

What could they see but a hideous and desolate wilderness, full of wild beasts and wild men?

—William Bradford

Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop off like autumn leaves.

—John Muir

Everybody needs beauty as well as bread, places to play in and pray in, where Nature may heal and cheer and give strength.

—John Muir

Declares the "policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain... an area of Federal Land retaining its primitive character and influence, without permanent improvements..." with "outstanding opportunities for solitude or a primitive and unconfined type of recreation."

—Congress, *Wilderness Act 1964*

Areas shall be managed to promote and perpetuate the wilderness character of the land and its specific values of solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation"

—Congress, *Eastern Wilderness Areas Act 1975*

We recognized, through its relatively small size, its already established levels and patterns of visitor use... that our wilderness area was not of the highest order...while our wilderness is not supreme, we will not allow its primeval character, and its opportunities for solitude, inspiration, and physical and mental challenges to decline. Furthermore, we will strive, and might be able, to improve its overall quality.

—Superintendent Jacobson, Shenandoah, 1976

3. Interpretive Program Outlines – Shenandoah National Park, Resource Immersion Program

Program Name: “Explore Wild Shenandoah” - Laura Cheek, Education Specialist

Theme: Shenandoah National Park’s designated wilderness becomes more than a legal line on a map after people experience its physical characteristics and forge emotional connections to the ideals which created it.

Goal: Through their personal exploration of Shenandoah’s designated wilderness, visitors will gain an appreciation for wilderness and will become active advocates of wild lands.

Objectives: At the end of the program, visitors will be able to:

1. State the purpose and meaning of the 1964 Wilderness Act.
2. State an individual definition of wilderness.
3. State the unique significance of Shenandoah’s wilderness.
4. List at least 4 benefits of designated wilderness.
5. Identify the National Wilderness Preservation System.
6. List at least four ways they can contribute to the preservation of wild lands.

Purpose: Wilderness as a resource benefits all people emotionally, psychologically, mentally and physically. Getting into and exploring wilderness on all of these levels increases one’s appreciation and support of wilderness.

Materials and References:

Dictionary

Large dry erase board or blackboard

National Wilderness Preservation System maps

Paper

Pens

Folders containing:

“Journal” (made for participants to take and keep, with inspirational quotes)

Copy of Wilderness Act

Maps of Shenandoah National Park districts showing trails and designated wilderness

Leave No Trace reference tag

Outline :

I. Introduction - Morning Meeting at Visitor Center

- A. Welcome
- B. About myself, Laura Cheek
- C. Program details
- D. Theme
 1. How many of you have been to Shenandoah National Park before this visit?
 2. How many of you have been in Shenandoah National Park’s wilderness area before?
 3. That’s what I encourage you to do today—to go wild and explore Shenandoah’s wilderness—physically, mentally, and emotionally.
 4. Before sending you out into the wilderness, I want to share with you some thoughts and information about Shenandoah’s wilderness, and hear some of your thoughts.
 5. First ask you to write down a few things.

II. Map Activity

- A. Hand out paper and pens.
- B. Ask participants to write down answers to following questions (have questions written on board for all to see):
 1. What is wilderness?
 2. How much of the USA is wilderness?

3. Write down the following NPS sites – Yellowstone, Glacier, Great Smoky Mountains, and Shenandoah.
4. Is wilderness important? Why or why not?
- C. What is wilderness?
 1. Ask participants for answer to first question. Write phrases on board.
 2. State that wilderness is all that and more.
 - a. Wilderness is an experience and a place.
 - b. Definitions and perspectives of wilderness have changed throughout history.
 3. USA has a definition of wilderness, written in 1964. Anyone know the amazing event that happened that year? President Lyndon Johnson signed the Wilderness Act, for “the permanent good of the whole people.”
 4. Have someone read excerpt of Wilderness Act (section 2c first sentence).
 - a. Discuss word “trammelled.”
 - b. Have someone look up in dictionary and read.
 5. What does this mean? We’ll explore that later.
- D. National Wilderness Preservation System
 1. The Wilderness Act created a system of wilderness, the National Wilderness Preservation System—a system that encompasses the entire United States, has been added to in the succeeding 37 years, now congressionally designated wilderness in almost every state in the USA.
 2. Is there wilderness in your state?
 3. Hand out maps of NWPS for participants to find their state and wilderness in it.
 4. Look at entire USA. How much wilderness would you say is in the country?
 - a. Take guesses.
 - b. Have everyone hold up hand—this represents whole USA—point to tip of little finger—that’s how much designated wilderness is in USA, about 4.5%. Half is in Alaska.
- E. Shenandoah wilderness
 1. NPS manages most wilderness.
 2. Which of the four parks you wrote down do you think has the most wilderness? (Don’t peek on map!)
 3. Shenandoah does! Forty percent of Shenandoah National Park is designated wilderness, the others have none.
 - a. Why don’t they have any? Are they wild? Yes, have components that you all listed and that are written in the wilderness act. They have proposed wilderness, yet it takes an act of Congress to create designated wilderness, the ultimate protection our country can give to land.
- F. What does this ultimate protection mean?
 1. Wilderness managed in specific ways, written into Wilderness Act.
 - a. Show list of do’s and don’ts (from section 4c and 4d).
 - b. This is what you can expect when you enter into a wilderness area.
 - c. Though responsibility up to visitors too—whether they enter into designated wilderness or not—all of our actions, inside and outside of wilderness effect the character and integrity of wilderness.

III. Personal Exploration

- A. The last question is up to you to answer.
- B. Now is your time to go out into the wilderness, to explore the opportunities of “solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation.”
- C. Hand out folders of information.
 1. Inside you will find maps of Shenandoah National Park, complete with overlooks, trails and designated wilderness area.
 2. You now can choose one, or more, of these overlooks to stop at or trails to explore. You can hike the whole route, go a little way, find a rock to sit on by a stream or with a view and contemplate. The way you explore is up to you.
 3. Inside is a small journal for you to take notes, write thoughts, poetry, questions, draw images, write your own wilderness act.
 - a. There are quotes to contemplate and questions to guide your thoughts printed on the paper.

- b. If your schedule allows, please meet back here at _____ to share our thoughts and discoveries, and I'll let you know where you can find more information about wilderness.
- D. Safety tips
 - 1. Be careful where you step—watch for wildlife, especially if you are quiet, you will have opportunity to see much more.
 - 2. Tick precautions.
 - 3. Bring plenty of water, snacks, dress appropriately, bring raingear.
 - 4. Please follow the principles of Leave No Trace.
 - a. Especially principle #2: Try to stay on durable surfaces. Stay on the trail, but if you go off, step on rocks or hard ground, not on fragile plants.
 - b. Also #7: Be considerate of other visitors, take breaks away from trails (make sure it is a durable surface!)
 - 5. Be wild and be safe!

Quotes for Journal Pages

Areas shall be managed to promote and perpetuate the wilderness character of the land and its specific values of solitude, physical and mental challenge, scientific study, inspiration, and primitive recreation.”
—Congress, Act, 1976

[Wilderness] is good for us when we are young, because of the incomparable sanity it can bring briefly, as vacation and rest, into our insane lives. It is important to us when we are old simply because it is there – important, that is, simply as idea.... We simply need that wild country available to us, even if we never do more than drive to its edge and look in. For it can be a means of reassuring ourselves of our sanity as creatures, part of the geography of hope.
—Wallace Stegner, *Coda: Wilderness Letter*, 1960

The wilderness itself is historic... the historic process that gave protection and allowed the return of wild nature is continuing... Shenandoah is both a preserving and a creating park.
—Darwin Lambert, *Administrative History of SNP*, 1979

Shenandoah is one of the great promises of the Wilderness Act, that we can dedicate formerly abused areas where the primeval scene can be restored by natural forces, so that we can have a truly National Wilderness Preservation System... that there are no area in the eastern US that can meet the test of qualification under the definition of wilderness in the Wilderness Act is just not so.
—Senator Frank Church, Senate Subcommittee Hearing, 1972

Wilderness is a damp and dreary place where all manner of wild beasts dash about uncooked!
—Anonymous

As I sat there on the rock I realized that, in spite of the closeness of civilization and the changes that hemmed it in, this remnant of the old wilderness would speak to me of silence and solitude, of belonging and wonder and beauty. Though the point was only a small part of the vastness..., from it I could survey the whole. While it would be mine for only a short time, this.. would grow into my life and into the lives of all who shared it with me.
—Sigurd Olson, *Listening Point*

In scenery you see more than you can absorb. In wilderness you absorb more than you can see.
—Tom Detrich

We recognized, through its relatively small size, its already established levels and patterns of visitor use ..that our wilderness area was not of the highest order.. while our wilderness is not supreme, we will not allow its primeval character, and its opportunities for solitude, inspiration, and physical and mental challenges to decline. Furthermore, we will strive, and might be able to improve its overall quality.
—Superintendent Jacobson, 1976

Thus always does history, whether of marsh or market place, end in paradox .. all conservation of wilderness is self-defeating, for to cherish we must see and fondle and when enough have seen and fondled, there is no wilderness left to cherish.

—Aldo Leopold, *A Sand County Almanac*

Wilderness is two things: fact and feeling. It is a fund of knowledge and a spring of influence. It is the ultimate source of health—terrestrial and human.

—Benton MacKaye, *Scientific Monthly*, 1950

Our expansive civilization... will eventually modify for human exploitation every last area on earth – except those that through human foresight and wisdom have been deliberately set aside for preservation.

—Howard Zahniser

There is a need in our planning to secure the preservation of some areas that are so managed as to be left unmanaged—areas that are undeveloped by man's mechanical tools and in every way unmodified by his civilization.

—Howard Zahniser

To know wilderness is to know a profound humility, to recognize one's littleness, to sense dependence and interdependence, indebtedness, and responsibility.

—Howard Zahniser

We have to come to realize that we ourselves are creatures of the wild, that in wilderness we are at home, that in maintain ... our access to wilderness, we are not... escaping from life but rather are keeping ourselves in touch with our true reality, the fundamental reality of the universe of which we are part.

—Howard Zahniser

The true wilderness experience is one, not of escaping but of finding one's self by seeking the wilderness.

—Howard Zahniser

Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop off like autumn leaves.

—John Muir

A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.

—Aldo Leopold, *A Sand County Almanac*

4. Education Curriculum – NPS Alaska Region Support Office

Title: The Culture of Wilderness WebQuest

Overview: Presently under development, “The Culture of Wilderness” WebQuest focuses on wilderness in Alaska and wilderness in national park units in Alaska. This program is based on national curriculum standards and includes emphasis on how the Alaska National Interest Lands Conservation Act defines the many exceptions for managing wilderness in Alaska.

Objectives:

- Examine the various concepts of wilderness, including points of view from people whose ancestors have been part of the landscape for tens of thousands of years and who may not even have a word for “wilderness” in their own language (e.g. Inupiaq).
- Connect students in a variety of locations and environments with one another through the Internet to facilitate an exchange about wilderness and what it means to them. For example, to a youngster in New York City, wilderness might be Central Park. To a youngster in Anaktuvuk Pass, it may be his or her “homeland.” To suburban Philadelphia youths, wilderness might be a place to go for an exciting backpacking or rafting trip in the summer, etc. Of course, many students will have no concept of wilderness or will not have thought about it before.
- Provide a context for a discussion about the meaning of wilderness through readings about the history and background of wilderness (including the law and even the congressional record pursuant to passage of the Wilderness Act). Internet links and other references are provided to assist students in locating such information.
- Examine current planning documents related to wilderness that are on public review and prepare comments on proposed alternatives in an effort to combine wilderness with civic involvement and to help students understand that they have a responsibility to become involved in the public process. Backcountry management plans for Alaska national parks are the focus with an emphasis on civics and citizenship curriculum. Teachers may choose to work with students on review and comment regarding local issues in their own communities.

4. Education Curriculum – Black Canyon of the Gunnison National Park and Curecanti National Recreation Area

National Park Service Mission

... to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

Black Canyon of the Gunnison National Park and Curecanti National Recreation Area Outreach Education is committed to: Creating an awareness and fostering an appreciation for the mission of the National Park Service and the natural, cultural, and historic resources of Curecanti National Recreation Area and Black Canyon of the Gunnison National Park.

Education Lesson Plan

Curriculum enhancing activities designed to complement national and state content standards across a variety of disciplines.

Title: The Magnitude of Wilderness

Grade Level: Sixth through Eighth Grade

Time Length: 60 minutes

Subject Areas: Science, Mathematics, Geography

Teacher: Two NPS Education Specialists

Colorado Content Standards:

Science

Standard 1. Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations. Students are able to use appropriate tools, technologies, and measurement units to gather and organize data; use metric units in measuring, calculating, and reporting results; communicate results of their investigations in appropriate ways (for example, written reports, graphic displays, oral presentations).

Geography

Standard 1. Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places, and environments.

Standard 1.1 Students know how to use maps, globes, and other geographic tools to acquire, process, and report information from a spatial perspective and are able to interpret and construct maps, globes, models, charts, and geographic databases.

Standard 5. Students understand the effects of interactions between human and physical systems and the changes in meaning, use, distribution, and importance of resources.

Standard 5.3 Students know the changes that occur in the meaning, use, location, distribution, and importance of resources and are able to describe why people have different viewpoints with respect to resource use.

Mathematics

Standard 1. Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems. They are able to use relationships among fractions, decimals, and percents, including the concepts of ratio and proportion, in problem-solving situations.

Standard 4. Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems. Students are able to solve problems involving perimeter and area.

National Content Standards:

Geography

- Standard: 1. Understands the characteristic and uses of maps, globes, and other geographic tools and technologies.
- Level III: Middle School/Jr. High (Grades 6-8)
- Uses thematic maps (e.g., patterns of population, disease, economic features, rainfall, vegetation).

Mathematics

- Standard: 4. Understands and applies basic and advanced properties of the concepts of measurement.
- Level III: Middle School/Jr. High (Grades 6-8)
- Understands formulas for measures (e.g., area, volume, surface area).
- Selects and uses appropriate estimation techniques (e.g., overestimate, underestimate, range of estimates) to solve real-world problems.

Theme: Wilderness areas in terms of size, proximity to population centers, and natural features.

NPS Focus: Public Law 39-535 (Organic Act), Public Law 88-577 Stat. 890 (Wilderness Act), Eastern Wilderness Areas Act, Public Law 95-250 (Redwood National Park Expansion Act), Vail Agenda Education Committee Report (Strategic Goal #2; Action Plan 16) and (Strategic Goal #3; Action Plan 52,62), Curecanti and Black Canyon Themes: Natural Resources/Wilderness

Environmental Concepts: Everything must fit how and where it lives (community). There is no free lunch (energy flow).

Environmental Learning Hierarchy: Ecological principles, problem solving processes, decision-making procedures.

Materials: Federal Lands in the Fifty States Map, National Geographic Society (1996). The National Wilderness Preservation System 1964-1999 Map, National Geographic/Trails Illustrated (1999), state highway map, topographic map, graph paper for each student. The Wilderness Act of 1964 (P.L. 88-577, 78 Stat. 890; 16 U.S.C. 1121 (note), 1131-1136).

I. Instructional Outcomes

Knowledge level: Students will be able to create an accurately scaled, thematic map based on wilderness areas managed by four federal agencies and be able to calculate area in total acreage and hectares.

Comprehension level: Students will be able to identify the locations and explain the boundaries of wilderness areas and to compare/contrast size using estimation and scale/ratio to show total acreage.

II. Anticipatory Set

What is wilderness? Wilderness is a place where the presence of humans is not evident. There are no roads, buildings, or other structures built by humans. No mechanized equipment is allowed in the wilderness. No ATVs, chainsaws, or mountain bikes. It is a place where we can see the world in its natural state. It is land that is untrammelled. What does untrammelled mean? Let's look it up in the dictionary. Untrammelled, U-N-T-R-A-M-M-E-L-E-D. Hmmm. It's not in the dictionary. What part of this word might we find in the dictionary? Let's look it up. T-R-A-M-M-E-L-E-D. Caught, confined, shackled. So untrammelled means something that is not confined or restricted. Wilderness!

Wilderness is land retaining its primeval character. What does that mean? Primeval, P-R-I-M-E-V-A-L. Let's look up this word in the dictionary. Primeval, primitive, belonging to the first or earliest period of time. It is where natural processes are still occurring and human activity is limited. Humans can only be visitors. This allows us to experience wild places that have remained relatively unchanged throughout history.

Where can we find wilderness? Wilderness areas are found in wetlands, grasslands, swamps, deserts, forests, tundra, and mountain peaks. There are over 630 wilderness areas located in almost every state within our country. There are only six states that do not have wilderness. Can you guess which ones they are? Kansas, Iowa, Rhode Island, Delaware, Maryland, and Connecticut. The largest wilderness area is in the largest state, Alaska. It is in the largest National Park, Wrangell-St. Elias. It was established in 1980 and has almost 10,000,000 acres. The smallest wilderness area is located off the coast of Florida. It is Pelican Island Wilderness Area, established in 1970 and managed by the U.S. Fish and Wildlife Service. It is only five acres and was the first National Wildlife Refuge established in the United States by President Theodore “Teddy” Roosevelt in 1903.

Who manages wilderness areas? They exist within: National Forests and Grasslands managed by the U.S. Forest Service; National Parks protected by the National Park Service; National Wildlife Refuges managed by the U.S. Fish and Wildlife Service; and on lands managed by the Bureau of Land Management. Does anyone know the similarities or differences between the four federal agencies that manage our wilderness areas? Two of the agencies are guided by a multiple use act and two have a single purpose. The Multiple Use-Sustained Yield Act (P.L. 86-517) established long-standing management policy for the forests for recreation, wildlife, fish, range forage, water and timber. The U.S. Forest Service and the Bureau of Land Management are governed by this act. The National Park Service has a mission . . . to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. The U.S. Fish and Wildlife Service is dedicated to the management of ...wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, and waterfowl production areas. Even though each of these four federal agencies manages their lands differently, wilderness areas that lie within each of their boundaries must be managed in a similar manner. The Wilderness Act of 1964 states that wilderness . . . is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. ...retaining its primeval character, without permanent improvements or human inhabitation, protected to preserve its natural conditions. The four federal agencies that manage wilderness areas are committed to accomplishing this directive by the people of the United States.

III. Teaching Procedure/Methodology

When one is traveling in a wilderness area, or for that matter anywhere, they should have a map. Maps can be planimetric or topographic and are used to inform us about the features of a geographic area. A map can also help us get us from one location to another. Highway maps used by motorists are planimetric. They do not show elevation. If you are driving on a road you usually do not have to concern yourself with hills and valleys. That is why we would use a topographic map when we are on a hike. A “topo” map shows us elevations and depressions on the earth’s surface. These changes in the surface of the earth are shown by contour lines.

Another type of map is a thematic map. These maps have a very specialized function. They are not designed for navigation. They are not used to get us from one location to another. They are designed to visually provide information. They show us information about a specific topic or theme. The map we are going to view today is a thematic map that represents wilderness areas managed by four federal agencies, the Bureau of Land Management, the National Park Service, and the U.S. Fish and Wildlife Service, all within the Department of Interior. The fourth agency is in the Department of Agriculture. Can anyone tell me what agency that is? Correct, the U.S. Forest Service.

(Distribute NWPS maps.) As we look at the map of the National Wilderness Preservation System, we can see there are various colors associated with the wilderness areas. What do these colors represent? We can find the meaning of these colors by looking at the map legend. What is a legend? A legend is a story about an event. A legend on a map tells us a story about the map. It provides a brief description of what we are looking at on the map. Map legends tell us what the various symbols and colors represent. What else can we see on this map? State boundaries, rivers, large bodies of water, plains, and mountains. Where are most of the wilderness areas located? Why do you think they are found mostly in the western United States? When we settled this country from where did we start? Where is most of our nation’s population located?

As we settled our country, moving inland from the east coast, we used most of the available land to build homesteads, farms, towns, and cities. By the time we reached the Mississippi River we realized that we had not set aside any 'open space' for use by all the people. It became apparent that we had better start setting land aside for the future. That is why our wilderness areas are found mostly in the western states on land owned by the federal government. The land in the east had been almost completely developed. The public lands in the west are special lands set aside for all of us to enjoy. Our country's wilderness areas are very special treasures that have been protected for the future.

How can we find out how many acres (43,560 square feet or $\frac{1}{640}$ of a square mile) each wilderness area has? We can use the Internet (<http://www.wilderness.net/>) and investigate each of the more than 630 locations. If we were to look at wilderness areas in metric units we would be using hectares instead of acres. To convert acres to hectares you need to multiply the number of acres by 0.405. If you know the hectares but want to know acres you can multiply the hectares by 2.471.

We know the largest and smallest wilderness area. Using the NWPS Map let's locate the Wrangell-St. Elias and Pelican Island Wilderness Areas. Now let's look at some wilderness areas across the United States.

IV. Check for Student Understanding

Ask students about the NWPS Map:

- Where are the largest areas (total acreage) of wilderness located?
- Where are the most (frequency) wilderness areas?
- Why do you think they are located in this region (western) of the U.S.?
- Where is most of the wilderness in our country? Where are the population centers of our country?
- What are the geographical features of the regions where most wilderness area are located?
- What wilderness areas are in our state? /Why are there no wilderness areas in our state.
- How large is the wilderness area in Black Canyon of the Gunnison National Park? How do you know this?

V. Guided Practice

I have selected the Absaroka-Beartooth Wilderness Area. It is located in Montana, has 920,343 acres, and is managed by the U.S. Forest Service. The other wilderness area I have selected is the Okefenokee Wilderness Area in Georgia. It has 353,981 acres and is managed by the U.S. Fish and Wildlife Service. Can you locate these two wilderness areas on the NWPS map?

(Distribute graph paper.) Using the graph paper we need to establish the number of acres each square will represent so that we can make a thematic map of each of the wilderness areas I have selected. How many squares are there on the graph paper? I can count each one of the squares or I can multiple the number of squares on one side by the number of squares on the other side to determine the area of this rectangle. There are 952 squares on the graph paper. How many acres will each of the squares on the graph paper have to represent so that the Absaroka-Beartooth Wilderness Area will fit on this sheet of graph paper? Yes, 1,000 acres. How many squares will it take to represent the Absaroka-Beartooth Wilderness Area? (a little over 920). How many for the Okefenokee Wilderness Area? (almost 354).

Let us estimate the size difference or the ratio in size of the two wilderness areas. What is the size difference of these two wilderness areas? Is the Absaroka-Beartooth Wilderness Area ten times as big as the Okefenokee? Five times? Twice as large? Yes! The Absaroka-Beartooth Wilderness Area is approximately two and one half times as large as the Okefenokee Wilderness Area. How can we mathematically prove this? Yes. We can divide the total acreage of the Absaroka-Beartooth Wilderness Area (920,343) by the total acreage of the Okefenokee (353,981) and get 2.59. If we round that up we will get 2.6. To confirm our calculation we can multiply $353,981 \times 2.6$. Our answer should be the total acreage of the Absaroka-Beartooth Wilderness Area. We get 920,351! Almost the exact answer we were looking for. So we can say that the Absaroka-Beartooth Wilderness Area is 2.6 times as big as the Okefenokee Wilderness Area.

Let us convert our acreage to hectares. A hectare is a metric measurement of surface area. It is equal to 10,00 square meters. In order to calculate the number of hectares, knowing the acreage, we multiple the number of acres by 0.405. The Absaroka-Beartooth Wilderness Area, 920,343 acres would be 372,739 hectares. The Okefenokee Wilderness Area, 353,981 acres, would be 14,336 hectares. If we were to draw thematic maps of

the two wilderness areas using hectares instead of acres. Would our ratio or scale remain the same? Yes. The scale or ratio can be any unit of measurement and will always remain the same. Using acres or hectares the Absaroka-Beartooth Wilderness Area will always be 2.59 times larger than the Okefenokee Wilderness Area. What if we used square inches? The ratio or scale would still be the same. The Absaroka-Beartooth Wilderness Area would still be 2.59 times as large as the Okefenokee.

Using the graph paper, each square representing 1,000 acres, let's draw to scale the Absaroka-Beartooth Wilderness Area. It can be any shape you want it to. We are only trying to represent the size of the wilderness area. Now let's draw to scale the Okefenokee Wilderness Area inside the Absaroka-Beartooth Wilderness Area. You can place it anywhere inside of the Absaroka-Beartooth Wilderness Area that you want to. It can also be any shape. We are attempting to tell a story with a graph. We are showing people that one of these wilderness areas is 2.6 times as large as the other. Now let's place a legend on our map and a scale to describe what everything represents.

VI. Independent Practice

Now I want you to select two wilderness areas. One must be smaller than the Absaroka-Beartooth Wilderness Area and larger than the Okefenokee Wilderness Area and managed by the Bureau of Land Management. Then find one that is smaller than the Okefenokee Wilderness Area and managed by the National Park Service. Draw them to scale on your theme map. After you have drawn them on your map, convert the acres of each of the wilderness areas you have selected to hectares. Be prepared to tell the class about the wilderness area that you researched. You can use the Internet to get your data.

VII. Closure

(After the students have completed their investigation and reported to the class.) Wilderness areas exist in all but six states, and are found from the lowest elevations to the tops of our highest mountains. They are found in wetlands, swamps, deserts, forests, tundra, and mountain peaks. They exist on national forests, managed by the U.S. Forest Service; National Parks managed by the National Park Service; lands managed by the Bureau of Land Management; and, in National Wildlife Refuges managed by the U.S. Fish and Wildlife Service. All of us must do what we can to respect and protect wilderness areas in the United States. No matter how large or small a wilderness area, or what agency manages it, that wilderness area is a very special place. A wilderness area has human and ecological value that is vital to the well-being of the world.

VIII. Self-Evaluation

Indicate what you judge to have been the strengths of the lesson, what changes you made during the lesson and what changes you would make if you were to teach the unit again.

IX. References Cited

The National Wilderness Preservation System 1964-1999 map. The Wilderness Society, Arthur Carhart National Wilderness Training Center, also Leopold Wilderness Research Institute, and National Geographic Maps/Trails Illustrated, Dec. 1999

X. Related Internet Sites

<http://www.nps.gov>
<http://www.blm.gov>
<http://www.fws.gov>
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